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This publication contains papers presented during a 2-day ccnference attended by institutional directors of fellowship programs and state directors of vocational education. Papers are: (1) "The Overall Rationale for a Doctoral Fellowship Program" by W. Loomis, (2) "The Status of Doctoral Programs in Vocational Education" by C. J. Schaefer, (3) "The Role of State Education Agencies in Advanced Study Programs in Vocational Education" by J. Struck, (4) "The Nature of Appropriate Internship and Practicum Activities for Advanced Study Programs in Vocational Education" by D. Bjorkquist, (5) "Planning and Evaluation of Advanced Study Programs in Vocational Education" by O. Legg, and (6) "Organization and Management of Curriculum for Doctoral Advanced Study Programs in Vocational Education" by H. Nelson. (SB)

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THE OVERALL RATIONALE FOR A DOCTORAL FELLOWSHIP PROGRAM

An EPDA Project

Involving

Fellowship Programs in

Vocational Education

William Loomis

Howard Martin respondent

PAPER FOR DISCUSSION

BY

INSTITUTIONAL DIRECTORS OF FELLOWSHIP PROGRAMS

AND

STATE DIRECTORS OF VOCATIONAL EDUCATION

Bureau of Educational Personnel Development
Vocational Education Personnel Branch
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THE OVERALL RATIONALE

For A

DOCTORAL FELLOWSHIP PROGRAM

Evidence abounds to support the conviction that America must make dramatic improvements in education and that a vital component of an improved educational system must be a viable vocational educational program. It is equally clear that one of the most important keys to improvement lies in the training and development of educational personnel.[1] Moreover, it is generally agreed that the method (system or approach) for achieving this professional development must--in most instances--be drastically reformed.[2]

The most essential ingredient in an educational overhaul--including the reform of professional development programs--is effective leaders.

The Vocational Education Amendments of 1968 were without question a mandate by Congress to vocational education personnel and other leaders to improve and expand this segment of education. It would be unrealistic to assume that the present leadership in the field could meet this challenge without a major effort on their part to review and restructure the goals, objectives, and priorities for vocational education for which they have responsibility.

Recognizing this need the U.S. Office of Education, primarily with grants from the Division of Comprehensive and Vocational Education, has sponsored inservice training programs for vocational education leadership personnel. This activity has been particularly noteworthy since the passage of the 1963 Vocational Education Act.

The Center for Vocational and Technical Education at the Ohio State University has had as one of its major objectives, the upgrading of vocational education leadership.[3] Also, many institutions and agencies have sponsored in-service training programs. Even though many of these efforts have been, and continue to be, exemplary, it has become evident that a much greater impact within the states and at the national level is obviously needed if the demand for an improved career development program is to be met.

The persistent and increasing demand for leadership development resulted in new legislation in 1968 giving special attention to graduate level programs. The part F Amendment to the Educational Professions Development Act[4] (EPDA)--also known as Title II of PL 90-576--and especially the implications of section 552 to graduate leadership development throughout the nation is essentially what this paper is all about.

IMPORTANCE OF THE ISSUE

(The Need for Leadership Personnel)

Most present educational programs are not balanced or adequate. They have emphasized academic and general education with limited offerings in vocational education. The nation, on the other hand, is committed to three economic goals--growth, full employment, and price stability.[5] An important vehicle for achieving these objectives is obviously the educational system of the country--and vocational education should be an integral and increasingly important component of this system.[6] If vocational education is to achieve its potential, what are the major obstacles? What are the implications for the development of leadership personnel?

The major barrier is the prejudice that teachers, administrators, parents, and the public in general display toward nonacademic occupations. This condescending manner and the stigma of being second best will not be easy to overcome.[7] A study in 1964 indicated that "probably no more than 10 to 12 percent of American occupations actually require college graduation."[8] It can be assumed, therefore, that approximately 85 percent require some vocational or technical education. However, last year less than 30 percent of all 11th and 12th grade students were enrolled in vocational education courses.[9] With a few noteworthy exceptions the enrollment picture at the post-high school level is about the same. Conscious effort to help vocational education leaders to meet this challenge has not been adequate.

Another problem is the failure of schools to relate academic and career goals. Students need to relate academic achievement to their own ability to earn a living. This means establishing understanding and cooperation among "vocational" and "academic" teachers and between the school and community. It means establishing a clear relationship between a student's class work and his occupational goals.

It is generally agreed that at the high school level a student should be able to retain multiple career choices and therefore should not be required to choose between academic or vocational tracks. This issue is explored in countless articles and publications, but attention is drawn especially to the insights and suggestions of Barlow,[10] The Advisory Council for Vocational Education (1968),[11] Evans and others,[12] The National Advisory Council for Vocational Education (1969),[13] the Commissioner's Annual Report on the Education Professions Development Act, 1969-70,[14] and Venn.[15] The challenge of providing leadership personnel who are qualified to cope with this problem is no minor undertaking.

Solving the learning difficulties of students from the families of the lower-classes and racial minorities is a hurdle facing vocational, as well as academic education. This challenge must be met if vocational education is to come even close to meeting its potential in the public educational system. Information is available to indicate why "disadvantaged" students fail.[16] However, little is known about why schools fail, or how they might be changed in order to make learning successful for such students. A teacher's expectations can and do quite literally affect a student's performance.[17] Thus, raising teacher expectations can be a significant way of meeting the needs of the disadvantaged. The Advisory Council on Vocational Education[18] recommended that special attention be given to this challenge, and the 1968 Vocational Education Amendments provide for a major effort in this direction. Meeting the needs of students of low-income families and racial minorities is not one of the more impressive accomplishments of vocational educators and, therefore, the ability to meet the needs of the disadvantaged is doubtless foremost among the competences demanded of today's vocational education leaders.[19, 20]

Two more obstacles are the availability and quality of vocational education personnel. Although there is a teacher surplus in many subject and grade areas today, vocational education is one of the fields which suffers from a critical shortage of qualified personnel. Projections indicate the need to double the teaching force by 1975.[21] More and more, research studies are concluding that of all the factors in a school environment, the teacher is the single, most important ingredient in terms of student performance.[22] While the dedication and ability of most vocational teachers now employed are commendable, built-in procedures are needed to provide refresher programs for those who desire to

participate, encourage those who do not, and winnow out those who will not. If there is to be effective reform, there must be vocational teachers with skills, knowledges, and attitudes capable of providing youth and adults with the best possible preparation for existing and future job opportunities. Teacher-education programs structured in the traditional way will perpetuate the fragmentation of vocational education, create an unnecessary dichotomy with academic education, and hinder adaptation to the labor market. What is needed is a teacher education program which concentrates on activities that serve all program areas and fosters a concept of new approaches to a broad view of vocational teacher education.[23, 24, 25] In sum, it would seem that considerable evidence is available to confirm the need for much greater effort on the part of the federal, state, and local educational agencies--and institutions of higher education--to develop teacher-education programs which deal more effectively with both quantity and quality. The development of leadership personnel capable of conceptualizing, developing, validating, administering, and evaluating such programs is critically needed.

Finally, a pervasive condition in education which hinders the general development of vocational education is public pressure which results in the preoccupation of school systems with the demand for better methods of accountability. Faced with new and unresolved problems, the schools are seeking new means for solving them.[26] Tools[27] such as system analysis, program-budgeting, management by objectives, cost-benefit analysis, performance contracting, and educational engineering[28] should improve the educator's ability, but they require new competences. Such competences although essential to both vocational[29] and academic education leaders, are perhaps more essential to vocational educators because the 1968 Vocational Education Amendments provide for independently con-

stituted National and State Advisory Councils[30] with a responsibility for program assessment at the state and national level. One study concludes that the system approach to vocational education may result not only in more effective programs, but also in more efficient administration and leadership of vocational education.[31] New and improved competences will be needed to meet this challenge of the "customers" of vocational education for accountability.

There is a great unmet need for leaders who can assure that vocational education fulfills its mission. Such leaders must be a "new breed"[32] with unique and high-level competences.

THE PROBLEM

The resources available for the development of leadership personnel for vocational education have not kept pace with the needs, the demands, the legislation, or even the programs for youth and adults. Utilizing the funds available under section 552, part F of EPDA to maximize resources for leadership development--to match at least the more critical needs--is the crux of the problem.

It is proposed that this problem be viewed in terms of the three major needs which should be met:

> The need to utilize the potential of this legislation to maximize short and long-range efforts to develop leadership personnel.
>
> The need for a program which will prepare leadership personnel to cope with the critical problems facing vocational education.
>
> The need for an approach to activating and maintaining untapped leadership-development resources.

Utilizing the Potential of Section 552

The primary purpose of the section 552 legislation is to create and sustain a flow of high-level manpower--vocational education leaders--to meet needs in all of the states. Requirements of the legislation make provisions for assuring that the present leadership-development program is updated. In providing for the implementation of this legislation, the following problems and potentials may be considered:

1/ Each state will be allocated a quota of leadership development awards. What procedure the U.S. Commissioner of Education will use in making actual selections is not specified. Because State boards for vocational education are charged with developing and administering a State Plan for vocational education, it seems logical and essential that State Boards be made the responsible agents for the initial selection of those persons to be given awards. State Boards should be in the best position to determine priority needs for high-level leadership personnel and their participation should assure that there is a greater concurrent effort to increase the capability of vocational programs to absorb such high-level manpower. If State Boards and their staffs concur in this point of view, it can be an effective way to maximize effort. However, it will have to be sold on its merit since it is not a legislative requirement.

2/ The criteria which institutions of higher education must meet to be eligible to participate are such that only a limited number of institutions could initially qualify. Even those with the immediate potential for eligibility had to make some programmatic adjustments

and at least some procedural changes in their admission processes. As the first institutions were considered for approval, special attention to the "comprehensiveness" of their program offerings and the admission process to be used was essential in order that the persons receiving awards would become exemplary products of the program. Thus, institutions wishing to participate later will be challenged to strive for comparable excellence. Because the need for high-level leaders in this field is critical, it would not be in keeping with the legislative intent for the U.S. Commissioner of Education to approve low-quality programs--and programs where untapped or uncommitted resources would have short and long-range implications.[33]

3/ The legislation clearly states that the program must be "designed to further substantially the objectives of improving vocati al education through providing opportunities for graduate training of vocational education teachers, supervisors, and administrators, and of university level vocational educators and researchers." The law does not, however, specify the level of graduate training to be provided. In order that the program be of sufficient intensiveness to meet the test of furthering "substantially" the improvement of vocational education, and of sufficient extensiveness to meet the test of being "comprehensive" it seems appropriate to look to a doctoral-level program. Without the incentive of a doctorate it is doubtful that the State boards for vocational education could recruit likely participants especially if such participants would have to move to a university in another state.

Moreover, little institutional impact could be expected from this program if "quickie" projects were proposed.

4/ In addition to this Leadership Development Award program, the part F amendment provides for the funding of inservice and preservice training programs through the State boards for vocational education. Such programs under section 553 of part F, may include provisions for leadership training as a segment of each state's special activities for which grants are made. These activities coupled with the ongoing-leadership programs supported from the basic federal vocational grants, from state funds, or from the funds of institutions of higher education, should permit each State to provide for a well-balanced program of leadership development. States that have not planned for a comprehensive leadership training program and have not used the various resources available to them for this purpose may view the section 552 program as a panacea.

5/ In addition to approval by the U.S. Commissioner of Education, section 552 requires that the program of instruction also be "approved by the State board for vocational education in the state where the institution is located." In most states the state education agency is responsible for approving or accrediting all teacher-education programs, both academic and vocational, as an activity related to teacher certification. State boards for vocational education have traditionally had potentially an even greater responsibility to approve vocational personnel and related teacher-education programs because of federal requirements. The importance of each State Board's role in giving direction to

vocational education and establishing professional personnel requirements necessary to accomplish priority-objectives, should not be treated lightly. The lack of adequate state-level data on vocational education personnel supply and demand requirements causes many State Boards--and state educational agencies concerned with academic personnel--to forfeit this critical policy function and management responsibility. Notwithstanding the national implications of section 552 the State Boards should not slight their responsibilities in approving these programs.

The challenges are myriad, but the potential impact of this legislation on vocational education will be in direct proportion to the extent that leadership-development training matches programmatic needs in the field, and the extent that adequate resources can be activated and maintained.

Leadership Development Must Match Programmatic Needs

Leadership needs can be assessed in terms of providing personnel capable of assuring that vocational education achieves its goals. Leaders will need to be able to identify, analyze, and overcome such problems as:

(1) the prejudices that educators and the public have for nonacademic endeavors,
(2) the failure of educators, students, and others to relate academic and career goals--including educational offerings,
(3) the need to provide effective learning experiences for students of low-income families and minority groups,
(4) the need for development of teacher-education programs which match projected needs for additional teaching personnel and accompanying quality requirements, and
(5) the growing demand by the public for improved management practices in the schools and colleges, especially more effective planning, evaluation, and provisions for accountability. (These needs/problems are discussed elsewhere in this paper under the heading "Importance of The Issue.")

The section 552 legislation indicates the leadership training program should further substantially the objective of improving vocational education. Thus, matching program needs to the leadership instruction to be received by the

participants seems essential. Facing those responsible for the administration of section 552, therefore, is the challenge of developing a system(s) which will identify significant programmatic needs and providing ways and means of matching these needs with the leadership training.

Activating and Maintaining Adequate Resources

When an assessment of resources for leadership development is made, it is generally agreed that the major potential, even if largely untapped to date, lies in the institutions of higher education. Historically, these resources have not been available in a realistic relationship to need. Impetus from outside sources such as leadership from the U.S. Office of Education, State boards for vocational education, and local education agencies has been largely responsible for at least the limited allocation of resources by higher education in the past.[34]

This limited commitment of higher education to leadership development--in addition to the notable prejudices which have haunted vocational education from the outset--grow out of preoccupation with (1) the exploding enrollments, (2) the increase in scientific and scholarly knowledge, (3) the competition for advanced degrees in many fields, (4) the ambition of many universities to add more "prestigious" programs and (5) the system of student support.[35] The degree structure, a focal point of the American higher education system, has a major impact on the lives of millions of persons, upon educational resources, and upon the potential development of vocational education. Apparently the historic degree structure has served this country well However, times are changing. Increasingly, fewer students, fewer campuses, and fewer jobs are well served by the traditional pattern. New arrangements are desirable, in fact

highly essential, to meet the need for qualified leadership personnel in vocational education.

The Carnegie Commission[36] established to study issues and needs in higher education made recommendations which included the following:

> Appropriate credit should be given for various types of experience outside the formal course structure.
>
> Employers should hire and promote on the basis of performance rather than degrees.
>
> Routes of entry and promotion, other than full-time college attendence should be utilized in various professions.
>
> The bachelor degree programs should be shortened by one year, doctoral programs by one or two years.
>
> Opportunities should be created for persons to re-enter higher education throughout their active careers, with degrees and certificates available as appropriate.
>
> Opportunities for students to alternate employment and study should be expanded (e.g. "sandwich"--programs in Great Britain and some American institutions).
>
> Alternate routes to degrees should be provided to increase the accessibility of higher education for those whom it is now unavailable because of work schedules, geographic locations, or responsibilities in the home.

Changes, in the direction proposed by the Commission, would permit the development of more relevant leadership programs in vocational education. Implementing these recommendations looms as a real challenge. The extent to which the section 552 program of Part F can be utilized to aid in bringing about these reforms needs to be given serious consideration.

Congress was reluctant to establish "parallel programs of fellowships" for vocational educators in 1968, when existing legislation permitted participation by both academic and vocational personnel. However, after acknowledging

the "parochialism of academic education" together with "the uninspired administration" of the present legislation and "the lack of aggressiveness on the part of vocational educators"[37]--as well as new and additional needs[38]--section 552, part F of EPDA was enacted. It will be a special challenge to vocational educators who administer and participate in this program not only to overcome the shortcomings observed at the time this law was passed, but also to consciously use this legislation to bring about changes in higher education proposed by the Carnegie Commission.

OBJECTIVE

It is proposed that the primary national aim in implementing section 552, part F of EPDA should be to maximize the resources from all possible sources to prepare leaders capable of developing vocational education to its optimum potential.

PROPOSED ACCOMPLISHMENTS

It is proposed that the objective can best be achieved by employing a variety of strategies to maximize the short and long-range potential of the legislation which will give special attention to:

1/ Providing for the development of advanced study programs designed to instill those competences in leaders which can be identified as essential for the task of bringing about specific improvements in vocational education, and

2/ (1) Activating untapped resources, the providing for a (2) self-renewing process, and the (3) securing of adequate resources on a continuing basis.

PROJECTED ACTIVITIES

Among the more salient activities which may be undertaken in order that the desired results can be realized are the following:

Relating to Program

Develop a delivery system for the recruitment and initial selection of those to be given awards which assures that State boards for vocational education have a primary role. The system should include an effort to increase the capability of vocational education programs to absorb high-level manpower.

Identify obstacles which prevent vocational education from achieving its potential and provide for the formulation of leadership development programs which produce leaders with competences capable of overcoming such impediments.

Provide for a plan which "builds upon strength in the approval of leadership development programs in institutions of higher education. Recognize that no single institution is likely to have the total resources and organizations required for providing all phases of a model graduate program. Thus, the comprehensiveness of a given program can be subject to continuous review.

Create opportunities for institutions of higher education, in cooperation with state and local leaders, to join together to identify and study selected problem areas, concepts, approaches, methodologies, strategies, and content alternatives for advanced preparation of vocational education leadership personnel.

Explore ways and means of sponsoring leadership development projects at the federal, state, and local level--as well as with institutions of higher education--whereby "vocational" and "academic" goals and objectives are synthesized.

Identify the various dimensions of the leadership development program for vocational education which should be considered by a state, and maintain a perspective of the role which the section 552 program can play as a component of the total undertaking.

Encourage State boards for vocational education to assume a major responsibility for program approval in the states where institutions of higher education are participants or prospective participants. Explore ways of involving State Boards more extensively in states where it does not seem feasible to develop approvable programs in institutions of higher education.

Coordinate efforts at the national level to maintain relevancy and "realism" in program content by working closely with all other federal programs concerned with vocational education. Seek ways to secure inspiration and guidance from integrated effort with all other segments of the vocational education enterprise at this level.

Resource Development

Work with State boards for vocational education in the development of a management information system which provides supply and demand data that indicates the relative need for leadership personnel with doctoral-level preparation. Encourage the states to determine the extent to which resources are available for leadership development for academic, as compared to vocational, personnel.

Identify exemplary efforts being made to exploit various sources of leadership development resources and disseminate information to all states.

Use section 552 resources in concert with others to bring about institutional reforms such as those recommended by the Carnegie Commission.

Disseminate information which indicates how leadership personnel with competences acquired as a result of a systematic assessment of need have furthered substantially the objective of improving vocational education.

E V A L U A T I O N

The Setting

Even though section 552, part F of EPDA provides for direct grants to institutions of higher education, state approval is requisite to such awards, and the State board for vocational education must approve the program. Equally significant is the requirement that the program must substantially improve vocational education as a result of the graduate training provided the participants. In order to determine if the programs of vocational education have been substantially improved, local educational agencies, state advisory councils, and other local and state groups will need to be involved. Thus, from the outset the responsibility for the evaluation of this program must necessarily be viewed as a Federal, State, and institution of higher education activity--with real implications for the involvement of local educational agencies and others.

The model set forth for the evaluation of EPDA projects at the time this section 552 was being instituted was outlined in the Project Directors' Handbook.[39] The emphasis is on outputs--planning programs and assessing their outcomes--and on closely related inputs, including monitoring progress. Through systematic collection of information about objectives and outcomes, "evaluation should facilitate the management and improve the quality of training programs." A plan of operation is called for which "ideally should delineate specific objectives and criteria against which actual performance can be assessed. The criteria, according to the model, should be applied at various stages of the project to determine whether it is meeting its specifications for (1) installa-

tion, (2) operation, and (3) outcomes". The extent to which this model can and should be adopted in order that the section 552 programs may be most effectively evaluated is a challenge facing the Federal, State, and institutions of higher education personnel involved.[40]

Some Basic Tenets

While the U.S. Office of Education requirements set forth a general framework for the design and development of an evaluation model, each major program area will doubtless have its own distinct characteristics and emphases. Outlined below are tenets which seem essential to the framework for the design and development of any model which will evaluate the performance effectiveness of section 552, part F of EPDA:[41]

1. The institutions of higher education and State boards of vocational education--in close cooperation with the U.S. Office of Education--should join in full partnership with local educational agencies in the design, development, operation and continuous evaluation of this leadership training program.

2. The component parts as well as the total program should be systematically designed to (a) bring about specific, assessable outcomes, (b) provide continuous evidence as to the efficiency and effectiveness with which those outcomes are achieved, and (c) be adaptable on the basis of that evidence.

3. The graduate training program should be personally appropriate to those going through it.

4. Leadership award participants should be able to demonstrate at the

time of program completion, that they can perform the functions for which they will be held responsible in leadership type positions which they have previously identified.

These tenets are quite general. However, they do propose that the program will be performance based, personalized, field-centered, and systematically designed and operated. Of these four elements, the providing for performance-based requirements will in all likelihood be the most elusive to accomplish.

Implications of a Performance-Based Program

While the dimensions of a performance based program are admittedly difficult to define, various characteristics have been identifed. A program based on measurable competence should be able to:

1. Permit leadership award participants to challenge and bypass those learning experiences in which they can demonstrate an acceptable level of skills-ability.

2. Require leadership award participants to demonstrate their competence in a variety of settings.

3. Allow leadership award participants to recycle to gain additional competence as they progress through the program.

4. Arrange for leadership award participants to perform in a simulated and controlled environment, including practicum and intern experiences before completing their program.

5. Emphasize the measure of achievement by competency level rather than duration of a stipulated period of graduate education or amount of general knowledge. This would be characterized by the ability to apply

learnings in real life situations.

The major outcome of such a performance-based program is that the assessment of competence needs to be focused upon the products that derive from the leadership award participant's behavior rather than upon the behavior itself. While this focus does not deny the significance of what this leader does, it does require that the leader behavior be viewed as a means to an end and not the end in itself. This approach to a short and long-range program under the auspices of section 552 will make it feasible to provide for a product-oriented evaluation process which can assess whether the program has been "designed to further substantially the objectives of improving vocational education through providing opportunities for graduate training" for the participants.

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THE STATUS OF DOCTORAL PROGRAMS IN VOCATIONAL EDUCATION

An EPDA Project

Involving

Fellowship Programs in

Vocational Education

Carl Schaefer

James McCanas respondent.

PAPER FOR DISCUSSION

BY

INSTITUTIONAL DIRECTORS OF FELLOWSHIP PROGRAMS

AND

STATE DIRECTORS OF VOCATIONAL EDUCATION

Bureau of Educational Personnel Development
Vocational Education Personnel Branch
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THE STATUS OF DOCTORAL PROGRAMS IN VOCATIONAL EDUCATION

by

Carl J. Schaefer[1]

This paper will attempt to answer two questions: 1) Where have we been in advanced study in vocational education and 2) Where should we be? The first appears to be a reasonable request and one which could be answered in some detail by a good historian. An answer to the second, may need the wisdom of a sorcerer or the comprehension of a fool. In either case the latter will be left to the judgment of the reader.

FROM WHENCE WE CAME:

The coveted advanced degree in our field is that of Doctor from the Latin docere; " to teach" and in Roman times was applied to anyone who taught. In the later Middle Ages it came to be used as a title of honor denoting men whose personal qualities or great learning had won them fame and special renown. Only with the organization of the Universities in the 12th and 13th centuries and the formation of faculties and the right to sit on those faculties did the privilege to use the title appear formally. In effect, the title remained a license to teach. By the end of the 13th century, the doctorate had been adopted by the universities

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[1]Dr. Schaefer is Professor of Education, Department of Vocational-Technical Education, Graduate School of Education, Rutgers University, New Brunswick, New Jersey.

at Bologna in 1160 and Paris in 1167 and by Oxford and Cambridge usually by faculties of civil and canon law. Programs of study of prescribed length and oral examinations resembling rituals were required of candidates. By the 14th century the doctorate as well as the masters degree had become a highly significant acknowledgment of intellectual ability. By the 16th century the title "doctor" began to take on a broader connotation then that of "teacher" and come to identify knowledge with fields of endeavor or disciplines. The performance of original research become a requirement of almost all doctor's degrees and the time limit to achieve such distinction was shortened by the advent of lesser or intermediate degrees such as the bachelors, masters and licentiate[2], many of which became terminal in themselves.

The first Ph. D. degrees earned in the United States were awarded in 1861 to three persons by Yale University. The first Doctor of Pedagogy was awarded by New York University in 1891 and the first Ed. D. was confirmed by Harvard in 1921. In the modern USA, the earned doctorate represents the most advanced degree conferred by a university or college. It indicates formal training of the highest order in a chosen field. In recent years over 25,000 doctors have been awarded with percentages indicating: 44% Ph. D., 30% M.D., 14% D.D.S., 5% Ed. D., and 3% D.V.M.[3] All of this represents a far cry from the original notion that the teacher and only the teacher of others deserved the title of docere.

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[2]The Licentiate is still awarded in France.

[3]George Schweitzer, The Doctorate: A Handbook (Springfield, Ill: Charles C. Thomas, 1965), p. 106.

WHERE WE'VE BEEN:

Today and in the future the earned doctorate will continue to be sought after by increasing numbers. In fact, higher education is forecast as an increasingly demand commodity at the bachelor's, master's and doctor's levels through 1978. See Figure 1.

The turn of the half century saw the conferring of doctor's degrees in the United States reaching toward the 10,000 mark and by 1960 this number had been obtained. As seen in Table I, the basic and applied sciences accounted for almost fifty per cent; the largest portion. Education, as a professional field made up but fifteen per cent of the advanced degree effort. Today, the percentage of doctor's in education still stands around fourteen per cent, although the number has increased measurable. Table II shows the earned doctor's degrees in the social sciences, humanities and the related professions for the ten year span 1957 through 1968 and projects the output through 1978. It is projected in the year 1978 there will be over of all science, humanities and related professional degrees 5,000 doctorates of education produced or about 26 per cent and 12 per cent of the total of more than 38,000 doctors degrees awarded in 1978. In education alone, this will represent a three-fold increase in the number produced over the 1958 figure as compared to an increase of five-fold in the field of English and Journalism, 5.5 times in Foreign Languages, as well as in Psychology and a four-fold increase in the Fine Arts. [4]

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[4] Kenneth A. Simon, Projections of Educational Statistics (Washington, D. C.: U. S. Department of HEW, 1968), pp. 38-39.

Perhaps a word should be said about the most popular of the doctorates for those in education; the Doctor of Education (Ed. D.). This relatively new degree was approved at the Harvard University Graduate School of Education in 1920 at the same time the school was established. Five men received the degree in 1921 and a total of 77 before 1932. In the ten year period that followed, the Ed. D. degree spread to a number of universities:[5]

University	Year	
Harvard University	1921	
University of California	1924	
Indiana University	1927	
Temple University	1928	
Stanford University	1929	
John Hopkins University	1930	(Use discontinued in 1951)
University of North Dakota	1930	
University of Texas	1930	
Pennsylvania State University	1931	
Rutgers University	1931	
University of Oklahoma	1931	
University of Southern California	1931	

Columbia University has surpassed all other institutions in awarding the Ed. D. although it did not confer the first one until 1934-35.

Although the requirements of the Ed. D. differ considerably, the notion behind it is summed up in the official Register of the Harvard University Graduate School of Education:

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[5] Walter Crosby Eeels, Degrees in Higher Education (New York: The Center for Applied Research in Education Inc. 1963), p. 29.

> The programs leading to the Doctor of Education degree are intended as preparation for positions of leadership involving the advancement of knowledge and the formulation of educational policy on both the practical and theoretical levels. The programs are organized to provide flexibility in meeting the interests of candidates with varying amounts of experience and different professional objectives. Each student has an adviser to aid him in developing an appropriate course of study. The course of study is designed to prepare the student to undertake a thesis or project in his area of special competence; such study may involve preparation in foreign languages, mathematics and statistics, or other research tools, although there are no specific requirements in these areas for students . . . [6]

Most educators feel the Ed. D. should be interpreted as a professional degree much the same as those in medicine or dentistry, rather than a research degree. Yet, the similarity in entrance requirements, dissertation study, qualifying, and final examination and residency requirements leave doubt as to its real intent. A 1960 AACTE study reached the following conclusions:

> In the main the two degrees, from the point of view of programming procedures, highly resembled each other . . . . In some institutions the degrees were identical for all practical purposes and by the admissions of the respondents . . . . Efforts on the part of some institutions to maintain basic differences between the two degrees while other universities perceive them as practically identical . . . will continue to create a measure of confusion in the profession . . . . The effort to differentiate requirements for the two degrees on the basis that the Ph. D. degree serves research and scholarly purposes and the E.D. degree serves practitioner or professional purposes may never gain wide acceptance . . . . It seems wise to conclude that either degree will best be understood through its institutional association, rather than from any overall aim or national statement of divergent functions. [7]

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[6] Ibid., p. 30.
[7] Ibid., p. 34.

The most meaningful data to this discussion are concerned with the advanced degree and the field of vocational education. Tables IV and V show the extent of awarding vocational master's and doctor's degrees over a five year period, 1964 to 1968.[8] This period accounted for 660 degrees being awarded including 132 classified as non vocational industrial arts. Of this total 133 were conferred upon women representing twenty per cent of the total. Of these, most were in the fields of Home Economics and Business Education. The year 1966-67 accounted for 177 of the total 660 degrees. Why this particular year's output was so high is difficult to ascertain.

An example of one of the areas of the field is that of trade and industrial education. G. S. Wall, compilier of the Industrial Teacher Directory of the National Association of Industrial and Technical Teacher Education (NAITTE) reported for the year 1966 there were eighteen exclusively vocational industrial teacher education departments; with nine offering the masters degree, none offering the specialist, and five offering the doctorate. Those additional departments which serve both industrial arts and trade and industrial education report that of the twenty-nine with majors in Trade and Industrial, thirteen award masters; three the specialist and six the doctor's degree. Collectively in 1966 the forty-seven departments granted degrees to trade and industrial majors as follows: Masters -- 157; Specialists -- 0; and Doctors -- 11. It is also interesting to note from the Wall analysis, that of the total

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8 U. S. Department of Health, Education and Welfare, Summary Report on Bachelors and Higher Degrees Conferred During the Year 1964, 65, 66, 67, 68 (Washington, D. C.: U. S. Government Printing Office, 1969).

229 departments listed in the directory, they were staffed by 1,923 teacher educators of whom 476 held the doctorate and twelve the specialist degree. The median department had six members and about one fifth of them held a doctorate.[9]

In a more recent check of the NAITTE Directory it is indicated that 128 institutions offered advanced degrees in 1968-69 and 166 doctors degree were awarded. In the year 1969-70, these same institutions awarded only 128 such degrees with the output summarized as follows:

Doctors Degrees (Ph. D. and Ed. D.)
NAITTE Directory

	1968-69	1969-70
Industrial Arts	74	41
Industrial Education[a]	89	73
Trade and Industrial	3	14
Total	166	128

[a]Includes all degrees other than industrial arts, or trade and industrial. Names such as: vocational industrial-technical, vocational-technical, and industrial education.

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[9] G. S. Wall, "Some Interesting Facts Concerning Industrial Teacher Education." Journal of Industrial Teacher Education (Lafayette, Indiana: National Association of Industrial and Technical Teacher Education. Vol. 5., No. 2, Winter 1967), pp. 25-30.

The fact remains that the departmentalizing of vocational education into its six areas: e.g., agriculture, business, distributive education, home economics, trade and industrial, and technical (industrial arts is sometimes also included) has prevailed from the bachelors through doctor's degree. This is the way the data have been reported throughout the years and is reported in this paper. However, the question can be raised as to the mission of those who hold the advanced degree in terms of the six areas. If the area of home economics education is considered a - subject matter at the bachelor's level, does it hold true that the area of home economics education represents the same field at the doctor's level? This is to ask, "What does a doctor in home economics do? Is this person an expert in home economics subjects or in the broader field of education? Is the person with a doctorate in trade and industrial education an expert in one of the specific disciplines of Trade and Industrial or is he a generalist in the field or even something broader encompassing the whole area of vocational education?" These are questions which have bearing on the validity of the data being used to describe the vocational advanced degree output, because on one hand the figures may represent a technologist type "end product" and on the other an educator. In other words, does the role of the individual change as the advanced degree is attained and if so, what kind of structure should this give to the content of the degree?

LEADERSHIP AND THE ADVANCED DEGREE:

Although not explicity stated, it is implicit that the advanced degree promulgates leadership; leadership in either a specific or general sense. The prestige of the degree itself bestows upon its bearer this role. J. Kenneth Little defines the leader as:

> A leader may be defined as one who commands or whose example motivates followers to do as is indicated. A leader may command by reason of an office he holds and the authority invested in it; or he may lead by reason of his capacity to initiate plans and actions which by their merit command respect and elicit support among the members of his institution. Both types of leadership are important in any organization. The official or structural leader is necessary to establishing accountability in the decision-making activities of the organization, but leadership in the decision-making process should arise at many points in the organization. [10]

As Bernard Goldstein put it at a symposium on "The Advanced Degree and Vocational-Technical Education Leadership" which considered the question of launching a new doctoral degree program:

> This program hopes to turn out not just people with doctoral degrees, but leaders. This requires that we pay some attention to the nature of leadership and the process by which leaders are produced. Leaders are people who have certain qualities that enable them to cause people to follow them. They are different from administrators . . . [11]

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[10] J. Kenneth Little, "Leadership as Viewed by a Psychologist." A Seminar on Graduate Education Programs. (Columbus: The Center for Vocational and Technical Education, 1970), p. 14.

[11] Bernard Goldstein, "A Sociological Perspective," The Advanced Degree and Vocational-Technical Education Leadership (New Brunswick: Rutgers University, Department of Vocational-Technical Education, 1966) p. 34.

Probably far more emphasis is placed on the synonymous meaning in educational circles of the advanced degree and leadership than in most other doctoral program endeavors. Leadership development and not subject or discipline expertise appears to be the modern trend of graduate schools of education. And when we have deviated from this pattern and stressed the substantive aspects which, for example, pervade the Ph. D. research oriented degree, we find as R. W. B. Jackson, Director of The Ontario Institute for Studies in Education said in his annual report:

> I wish, with some hesitation, to refer to a problem in graduate instruction that has given many of us some cause for concern. Four years ago, it will be remembered, the decision was made to concentrate our efforts on the M. Ed., M.A., and Ph. D. programs, and to discontinue the enrollment of candidates for Ed. D. The new programs seemed eminently successful in meeting apparent needs; recently, however, new needs and demands have arisen that may require different or supplementary provisions . . .
>
> The nature of the program and of the thesis, raises a host of questions. To emphasize the practical and applied, rather than primarily the theoretical aspects of topics in the courses and the thesis, could mean the introduction of a new type of teaching program and a different approach to the thesis, based perhaps on a comprehensive analysis of a major development project. Possibly, such new approaches would better meet the needs of many practitioners now seeking graduate study in education.[12]

For a number of such reasons, the research oriented degree that would sacrifice the leadership and practical role needed today in education is to be avoided.

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[12]R. W. B. Jackson, "Report of the Director," Annual Report of the Board of Governors, (Toronto, Ontario, Canada: The Ontario Institute for Studies in Education, 1968-69), pp. 8-9.

If this is indeed the case, why then are we dealing with classification systems that continually compartmentalize advance degree recipients in five or six major areas rather than in the total field of vocational-technical education? Why are we not offering a doctor's degree with a major in vocational-technical education?

This has been but a brief overview of where we have been which in itself raises some questions of our past performance both in quantity and quality of doctor's output related to the field of vocational-technical education. The more stressing question is, "Where should we be?"

WHERE WE SHOULD BE:

It should be obvious that with the help of the Educations Development/Professions Act (EPDA) Part F, Section 552, we are now in the process of preparing over a hundred young educators in the advanced degree. We are teaching them facts and practicing them in the use of methods. We attempt to inculcate changes in attitudes; not clearly understanding how to go about it. And we espouse that glorious term "leadership," a commodity that perhaps is neither gotten nor assured by any training program. Within our institutions of higher education, we occasionally tinker with the curriculum with the hope we can make poor minds into great ones and yet it is not clear just what we would like to achieve. All of this is done in an atmosphere of institutional prerogative and academic freedom which has proclaimed each to his own. Little exchange of thought, except through our cherished and highly selective journals, and limited professional

meetings takes place. To ameliorate this professionalism is what makes the thrust of the Part F of the Educations Professions Development Act so exciting. At long last we are talking face to face.

Don Davies, Associate Commissioner in charge of EPDA sees the Act as providing the strategy to bring about educational change through the changing of people, "It means reeducating the education professions in the kinds of attitudes, and skills, and knowledge they need to perform effectively in a new setting and under new conditions. That means changing ourselves and everyone else who has anything to do with running or serving the schools -- teachers, aides, counselors, superintendents, teachers of teachers." [13]

But if there is to be an era of innovation and change there must be a vision of what it is to be. That is the say, there must be a set of specifications drawn up to the shape and manner of the curriculum, the teachers to staff it, the methods to be used and its administration if the doctor's degree is to come to anything other than to be tinkered with. This is precisely what we at Rutgers undertook some four years ago. It might be well to review our findings drawn from two sources: 1) the knowledge and know how within the field of education, and 2) estimates about the nature of the technological, economic, and social well being as seen through the eyes of those in other disciplines. [14]

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[13] Don Davies, "Getting Into the EPD Act, " American Vocational Journal. Vol. 44, Number 6 (September, 1969).

[14] O'Brian, John L. (ed.), The Advanced Degree and Vocational-Technical Education Leadership (New Brunswick: Rutgers University, Graduate School of Education, 1966) 1-52.

Vocational Guidance. -- Writing as an outsider to the field, Donald Super envisioned vocational education and its leadership facing three major challenges; two of which are immediate and the third of the future. First, is the need to develop a secondary education curriculum which combines solid grounding in the basic skill and content subjects for the non-academic students with vocational content that makes these subjects real. Second, is the development of secondary education which meets the needs of future semi-skilled workers and third, is the advent of the vocational through increased leisure time brought about by an outmoded economy.[15]

Economics. -- Jacob J. Kaufman, a labor economist, saw the discipline of economics inculcated into the new breed of vocational-technical educators for at least four reasons: 1) so they can understand the implications of a dynamic society which calls for new skills; 2) so they can develop the appropriate curricula to meet these new demands; 3) so they are capable of making intelligent decisions among the many demands which are made for funds for programs, and 4) so they are competent to develop and understand research conducted in their areas in order to develop appropriate vocational and technical programs. [16]

Psychology. -- In attempting to predict the role of the future leader in vocational-technical education, Daniel Katz, a psychologist, indicated that leaders can no longer follow their specialized and narrow fields. They must be prepared in doctoral programs which are broad and deep in other disciplines. Among the training needed would be research methodology; human learning and performance;

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[15] Ibid., 8-13.
[16] Ibid., 14-18.

group dynamics; personality and motivation, and the social psychology of organization. In addition, Katz appealed for the use of the internship for half-time for a full year in some on-going enterprise tied-in with a weekly seminar. Relative to research preparation, he emphasized that the requirement be made more real by abandoning the old criterion of a significant original contribution to knowledge and allow for a replication of older research or a piece of a larger research project.[17]

Sociology. -- In his discussion of work and education, Richard F. Hamilton pointed out that for all its importance, we have remarkably little information on the world of work. Among the kinds of information we do not have, that concerns the sociologist is: 1) We do not have adequate information or the kind and quantity of jobs which will be available a decade from now; 2) We do not know the detailed skill requirements of the jobs which will be available in the next decade, and 3) We have only limited information on alternative ways of organizing work so as to achieve a given quantity and quality of output. Within sociology, specialities or fields of interest have developed around such areas as the individual, groups, organizations and masses; all of which have a bearing on vocational education. The research of the sociologist although too frequently of the "pathology" type is now turning to that which makes for success and what constitutes good experiences as models to be replicated; an aid to the educator and a contribution to vocational education.[18]

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[17] Ibid., 20-23.
[18] Ibid., 26-33.

Adult Education. -- Returning to the field of education, Andrew Hendrickson's thoughts about the advanced degree and vocational education confirmed the need for: 1) a good grounding in the social sciences; 2) Enough exposure in the area of school administration to furnish insight into institutional roles and relationships of and between the national government, state government; higher institutions of learning and the intermediate and local school districts; 3) Field work and internships to provide first hand experiences and 4) Advanced seminars where students undergo the necessity of defining problems, thinking critically, developing alternative and innovative solutions under the guidance of competent faculty members. More specifically to adult education, there should be no place for a doctoral candidate who is not, or does not become, committed to the ideal of lifelong learning.[19]

Business and Industry. -- George A. Rietz, representing business and industry raised the question whether or not educators will assume the initiative in getting the cooperation of business and industry. The advice he gave was that the development of such cooperation seldom is initiated by the business community. They must be "hooked" into realizing the role they can play in helping vocational-technical education become of age. An increased member of enlightened business leaders are justifying educational programs and cooperation as appropriate responsibilities of any "corporate citizen." Many feel that education is a total community responsibility and some of the unique resources of business and industry should be utilized for the enrichment of education. Moreover, there

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[19] Ibid., 35-37.

are capable men in business and industry who feel their aptitudes and interests are for teaching. Perhaps schools should more actively exploit such potential resources.[20]

Vocational Education. -- Byrl R. Shoemaker, a vocational educator, stated emphatically, that, "When the answer to the problem of unemployment is found, vocational education will have a prominent part in the solution." The problem is, that too few vocational educators have the breadth of experiences which will enable them to work creatively over the whole spectrum of vocational education opportunities and have too little opportunity to gain knowledge and experiences in related disciplines which can be applied to many situations in the field of vocational education. The advanced degree should include a program of leadership preparation in: 1) the related disciplines of educational psychology, sociology, law, economics, employment trends; 2) instruction in research; 3) skills and experiences in leadership and communications media; 4) depth understanding in vocational education such as practices, trends, planning, organization; 5) acquaintanceship with each of the seven areas of vocational education; 6) principles and practices in the field of post-high school technical education; 7) understanding of the Federal Acts and 8) principles and practices of funding vocational education.

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[20] Ibid., 40-43.

The sum total of this effort yielded the fact that our "own" people must be able to talk across discipline lines and use the disciplines of sociology, economics, guidance and psychology as well as the fields of administration, and adult education to the best advantage so as to be able to pose and pursue questions that are unique to the field of vocational-technical education. This is in face of the fact that exposing "insiders" to such training and contacts carries with it the danger that they will be subverted to other interests. On the other hand, keeping them isolated carries with it the danger that their skills become obsolete. But the risk is necessary if the advantage is to be gained.

Yet, if we are not but to merely tinker with the doctors program through the interdisciplinary approach, we must be more specific in our purpose. That is to say, what should be the purpose of the advanced degree? Moreover, if we accept the leadership component in an advanced degree program, what should be the demonstrated qualities? The following ten such qualities are suggested as exemplifying the desired end product.

1. Up-to-date knowledge, concepts, and theories in Vocational Education and related fields.

2. Potential to function as a change agent.

3. Capability for problem-solving and decision-making.

4. Capability for communicating with and understanding other people.

5. Ability to read and use research in a variety of fields.

6. Sensitivity to one's own career development needs and an orientation toward facilitating the career development of others.

7. Ability to locate, develop, and use resources to assist oneself and others to get the best education possible on a continuing basis.

8. Talent, knowledge, confidence and flexibility to implement a career choice, i.e., assume one or more roles in the field.

9. Commitment to the plight of people with special needs (e.g., poor and handicapped).

10. Ability to maximize the use of one's time and effort (i.e., being responsible and well-organized).[21]

Such demonstrated qualities should be viewed in context with one's career goals in the areas of administration, college teaching, research and curriculum development. In essence then, a doctors degree program with a major in vocational education should have the components of: 1) an interdisciplinary core; 2) a selected area of course work (administration, college teaching, research, curriculum development), 3) an internship, and 4) a scholarly paper or research undertaking. The proportionate amounts of each would depend on institutional preference and degree requirements as differentiated through the Ed. D. or Ph. D. degree.

Just how many institutions are capable of mounting such an offering becomes questionable. It would appear far better to have a limited number of

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[21]Approved by the Department of Vocational-Technical Education faculty, Rutgers Graduate School of Education, 12/18/1970.

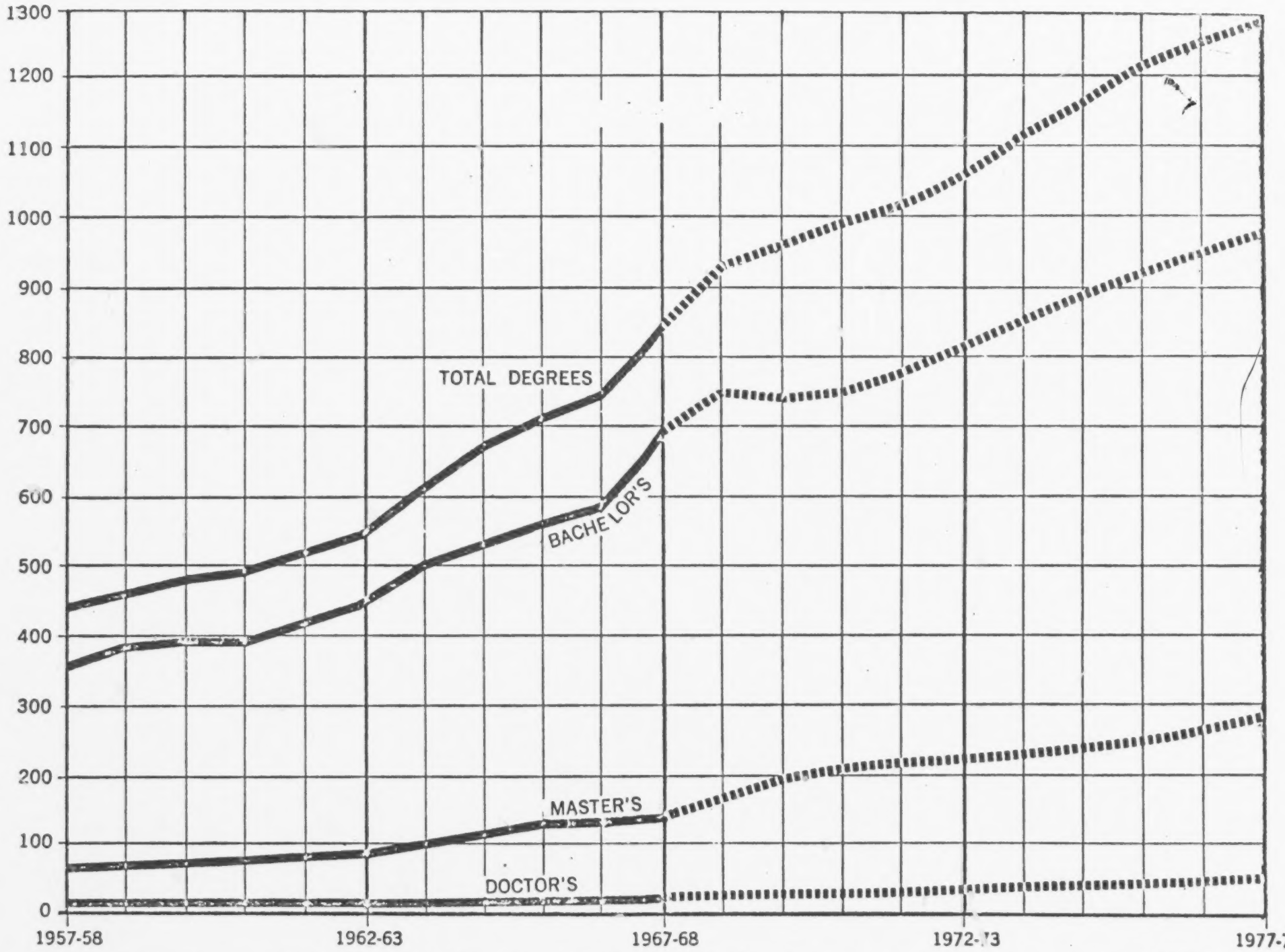
high quality doctors degree granting institutions than a large number of mediocre ones. Everyone knows too well that the advanced degree is a costly proposition to implement and limited resources usually can be best utilized if they are targeted rather than dispersed. To this end then, the limited resources through EPDA funding should not be spent to encourage new programs until their is assurance that those previously funded ones have reached a point of full potential. To do otherwise is to run the risk of dilution.

To recapitulate, the doctors degree has a long history forged out of wisdom and scholarship. The fact that education has taken on to itself the more professional degree, Doctor of Education, while retaining most of the requirements of the Ph. D., has somewhat clouded the picture as to its purpose. To complicate things even more, the presently used reporting system uses the separate fields of vocational education which leads one to believe that with each degree a high and higher level of specialist is being prepared thus ignoring the combined field of vocational education. The out put of the advanced degree is meager with the present shining hope being through the Part F of the Educations Professions Development Act and the continued vision through Title I of the Vocational Education Act. Questions can be raised regarding the leadership role or its lack of emphasis in advanced degree preparation.

Leadership is in quest in education as in no other time in its history and questions can be raised as to how such potential can be identified and

developed. And finally, but not to be diminished is the need for the broad preparation of those with the advanced degree with substantial inputs from other disciplines such as psychology, sociology, economics, political science and other areas of education such as evaluation, curriculum development, adult education, administration, and guidance. But lastly, is the need for the holder of the advanced degree to be competent in the field of vocational education as a practitioner and a change agent.

Figure 1. — Earned degrees, by level: United States, 1957-58 to 1977-78[a]



[a]Kenneth A. Simon, Projections of Educational Statistics (Washington, D. C.: U. S. Department of HEW, 1968), p. 29.

TABLE I

PERCENTAGE DISTRIBUTION OF TOTAL DOCTOR'S DEGREES
1953-1963[a]

Year Ending June 30	No. of Degrees	Arts, humanities & Social Studies	Basic and Applied Sc's	Other Prof. Fields		
				Total	Education	Misc.
Men and Women						
1953	8,307	29.7	49.0	20.8	16.3	0.5
1955	8,840	30.5	48.1	21.0	16.6	.7
1957	8,756	31.3	47.2	20.6	16.4	.9
1959	9,360	32.4	47.0	20.4	15.9	.2
1961	10,575	32.3	47.9	19.3	15.1	.5
1963	12,882	30.7	49.3	19.5	15.2	.4

[a]Marie Fullman and Frances E. Ryan, Earned Degrees by Field of Study and Level Projects to 1975, (Washington, D. C.: U. S. Department of HEW, 1964), p. 2.

TABLE II

EARNED DOCTOR'S DEGREES (except first professional)[a]
Social Science, Humanities and Related Professions[b] U.S. 1957-1978

Year	Total	Fine Arts	Phil. & Religion	English & Journ.	Foreign Language	Psych.	Social Science	Education	Lab. Sc.	Social Work
1957-58	4,768	292	222	335	224	572	1,144	1,529	19	18
1959-60	5,132	380	233	405	232	641	1,282	1,474	19	23
1961-62	5,938	425	251	493	261	781	1,391	1,737	10	32
1963-64	7,353	519	285	570	379	939	1,803	2,191	13	43
1965-66	9,110	588	360	714	518	1,206	2,155	2,711	19	64
1967-68	10,890	720	430	870	620	1,450	2,590	3,190	20	80
Projected										
1969-70	12,720	860	490	1,050	720	1,700	3,040	3,670	20	110
1971-72	13,720	960	520	1,150	780	1,840	3,290	3,900	20	120
1973-74	17,940	1,280	670	1,550	1,010	2,420	4,330	5,020	20	170
1975-76	18,310	1,350	670	1,620	1,030	2,480	4,440	5,030	20	200
1977-78	19,620	1,450	710	1,750	1,110	2,670	4,760	5,360	20	210

[a] First Professional Degree includes: Medicine, Law, Theology which takes more than 5 years to complete.
[b] Kenneth A. Simon, Projections of Educational Statistics (Washington, D.C.: U. S. Department of HEW, 1968), p. 39.

TABLE IV

VOCATIONAL DOCTOR'S AWARDED BY TOTALS BY AVERAGE MALE AND FEMALE 1964-1968[a]

Field	1963-64 Doctorate M	1963-64 Doctorate F	1964-65 Doctorate M	1964-65 Doctorate F	1965-66 Doctorate M	1965-66 Doctorate F	1966-67 Doctorate M	1966-67 Doctorate F	1967-68 Doctorate M	1967-68 Doctorate F	Total
Agriculture Education	20	0	27	1	30	0	32	1	31	0	142
Business Education	18	12	24	6	37	6	29	20	26	12	190
Distributive Education	2	0	0	0	1	0	6	2	4	2	17
Home Economic Ed.	0	11	0	14	0	18	0	12	0	12	67
Industrial Arts (non-vocational)	16	0	32	0	31	0	26	0	27	0	132
Trade & Industrial Education (vocational)	13	0	11	0	21	0	46	3	17	1	112
Totals	69	23	94	21	120	24	139	38	105	27	660

[a]U.S. Department of Health, Education and Welfare, Summary Report on Bachelors and Higher Degrees Conferred During the Year 1964, 65, 66, 67 and 68 (Washington, D. C.: U. S. Government Printing Office, 1969).

TABLE V
VOCATIONAL MASTER'S AND DOCTOR'S AWARDED BY MALE AND FEMALE BY AREA 1964-1968[a]

Field	1963-4	1964-5	1965-6	1966-67	1967-8
Agriculture Education (Male)					
Master's	307	357	419	443	467
Doctorate	20	27	30	32	31
Master's (Female)	0	11	11	8	31
Doctorate	0	1	0	1	0
Business Education (Male)					
Master's	338	400	490	517	552
Doctorate	18	24	37	29	26
Master's (Female)	485	519	680	707	791
Doctorate	12	6	6	20	12
Distributive Education (Male)					
Master's	17	29	50	92	75
Doctorate	2	0	1	6	4
Master's (Female)	9	10	11	31	21
Doctorate	0	0	0	2	2
Home Economic Education (Male)					
Master's	1	1	0	5	0
Doctorate	0	0	0	0	0
Master's (Female)	403	447	450	504	550
Doctorate	11	14	18	12	12
Industrial Arts (Male) (non-vocational) Master's	775	900	995	1,045	1,108
Doctorate	16	32	31	26	27
Master's (Female)	4	14	8	9	14
Doctorate	0	0	0	0	0
Trade & Industrial Education (vocational) Master's (Male)	188	217	239	313	401
Doctorate	13	11	21	46	17
Master's (Female)	22	17	23	57	20
Doctorate	0	0	0	3	1

[a]U. S. Department of Health, Education and Welfare, Summary Report on Bachelors and Higher Degrees Conferred During the Year 1964, 65, 66, 67 and 68 (Washington, D.C.: U.S. Government Printing Office, 1969).

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THE ROLE OF STATE EDUCATION AGENCIES
IN ADVANCED STUDY PROGRAMS
IN VOCATIONAL EDUCATION

An EPDA Project

Involving

Fellowship Programs in

Vocational Education

Jack Struck

Henry ten Pas respondent.

PAPER FOR DISCUSSION

BY

INSTITUTIONAL DIRECTORS OF FELLOWSHIP PROGRAMS

AND

STATE DIRECTORS OF VOCATIONAL EDUCATION

Bureau of Educational Personnel Development
Vocational Education Personnel Branch
U. S. Office of Education

in cooperation with

Vocational Education Division
Minnesota State Department of Education
St. Paul, Minnesota

April 12-14, 1971
National Center for Vocational Education
Ohio State University
Columbus, Ohio

FOREWORD

The general objectives or major goals of this project are three-fold: (1) to enhance the capability of the field of vocational education for maintaining a flow of high level manpower through doctoral programs, (2) to strengthen the capability of institutions for providing doctoral programs, and (3) to establish guidelines for the improvement of existing and potential doctoral programs in vocational education.

Prior to the planned meeting of the institutional directors of fellowship programs being conducted under Section 553, Part F, of the EPDA, an advisory committee for this project met to determine a course of action and to ascertain what background papers would be helpful. Six papers for discussion purposes have been prepared concerning the following topics:

1. The Overall Rationale for a Doctoral Fellowship Program
2. The Status of Doctoral Programs in Vocational Education (the state of the art; what it is and what it should be)
3. The Role of State Education Agencies in Advanced Study Programs in Vocational Education
4. Planning and Evaluation of Advanced Study Programs in Vocational Education
5. The Nature of Appropriate Internship or Practicum Activities for Advanced Study Programs in Vocational Education
6. Organization and Management of Curriculum for Doctoral (advanced study) Programs in Vocational Education.

In each of these papers the intent has been directed to the topics on a conceptual level, as well as on an implementation or an operational level. While the focus of funded institutional programs is on doctoral programs, the advisory committee has urged that the concept of "advanced study" be substituted wherever possible for "doctoral" programs in order to include a range of advanced work from pre- to post-doctoral programs.

Each of these reports represents the considered judgment of the authors and the resource personnel whom they consulted. In some cases additions, deletions, and minor changes have been made in these papers at the suggestion of the total advisory committee.

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ADVISORY COMMITTEE

CHAIRMAN
Mr. Robert P. Van Tries
Assistant Commissioner
Division of Vocational-
Technical Education
Centennial Office Building
St. Paul, Minnesota 55101

Dr. Gordon Swanson
Professor of Education
University of Minnesota
Minneapolis, Minnesota 55455

Dr. Duane Blake
Department of Vocational Ed.
Colorado State University
Fort Collins, Colorado 80521

Dr. Carl J. Dolce, Dean
School of Education
University of North Carolina
Raleigh, North Carolina 27605

Dr. Norman N. Durham, Dean
Graduate School
Oklahoma State University
Stillwater, Oklahoma 74074

Mr. Robert E. Kuhl
Instructor, Vocational Ed.
Dept. of Industrial Education
University of Minnesota
Minneapolis, Minnesota 55455

Dr. William Loomis
State Department of Education
306 Public Service Building
Salem, Oregon 97310

Dr. James McComas, Dean
College of Education
University of Tennessee
Cumberland Avenue, S.W.
Knoxville, Tennessee 37916

Dr. Robert Reis
Department of Industrial Ed.
Ohio State University
Columbus, Ohio 43210

Dr. Carl J. Schaefer, Professor
Department of Vocational-
Technical Education
Rutgers University
New Brunswick, New Jersey 08903

Dr. Robert S. Seckendorf
Assistant Commissioner for
Occupational Education
State Department of Education
Albany, New York 12224

Dr. John W. Struck, State Director
Vocational Education
State Department of Education
Box 911
Harrisburg, Pennsylvania 17126

Dr. Henry A. Ten Pas, Director
Division of Vocational, Adult
and Community College Ed.
Oregon State University
Corvallis, Oregon 97331

Mr. Lloyd Briggs, Chief
Vocational Education Personnel
Branch, BEPD
U. S. Office of Education
Washington, D. C. 20202

Mr. Frank L. Perazzoli
Education Program Officer
Vocational Education Personnel
Branch, BEPD
U. S. Office of Education
Washington, D. C. 20202

Dr. Otto Legg
Senior Program Officer
Planning Program, P & E Branch
U. S. Office of Education
Washington, D. C. 20202

Dr. Phil Teske
Division of Comprehensive
and Vocational Education Research
National Center for Education R & D
U. S. Office of Education
Washington, D. C. 20202

INTRODUCTION

Our fast changing society and economy makes it essential, even imperative, that improvements and changes be made in vocational education programs, particularly those supported by public funds of one source or another.

A move in Congress to have the nations' needed skilled manpower trained by agencies other than the public schools and institutions is more than a gentle reminder of the massive dissatisfaction by many.

The effectiveness of the vocational-technical programs, as well as all other educational programs, is to a great extent dependent upon the leadership that directs such programs. Not only must we have well-prepared teachers and good facilities, but we must have able administrators capable of providing the leadership to make the educational programs and services both realistic and viable to society's needs.

The term "advanced study programs" is used not only in the pre-service context of preparing new administrators, but in the very vital in-service programs of providing administrators and supervisors with knowledge and understanding of new problems, methods, and factors affecting education. The in-service program of providing opportunities of improvement to those about to undertake larger or different responsibilities in the field of administration and leadership is an extremely vital one in vocational education because of the changing nature and role of this field of education to meet the fast changing nature of the economy and manpower needs.

For too long the educational community has followed a "hands off" policy with regard to the planning of advanced study programs in all areas of education. Planning of such pre-service and in-service programs to develop potential leaders in education has long been the sole prerogative of institutions of higher education. Coupled with this has been a strong reticence or perhaps neglect by such institutions to seek opinions and reactions from their graduates of advanced study programs concerning the effectiveness and content of the prescribed programs.

The state and local education agencies are the purchasers and consumers of the products of the colleges and universities. They are the ones who will experience success or failure, dependent, to a large extent, on the quality of those granted degrees by such institutions. Their needs reflect factors which should be incorporated in developing teachers, administrators, and supervisors. It is essential that the state agency play a vital role in bringing together the educational and training expertise of colleges and universities and the needs of those who will be employing the graduates of their programs.

Although the actual arrangement for vocational teacher education and the development of vocational education administrators varies considerably among the states and in the various areas, most schools and institutions have a great many common areas of need when it comes to leadership, administration, and supervision. New relationships between teacher-education institutions, business and industry,

State Departments of Education, and local educational agencies must certainly be developed if more realistic programs of advanced study are to be forthcoming.

While the preparation of vocational education teachers and administrators is primarily the responsibility of colleges and universities, the content of such programs should arise directly from the cultural and economic needs of people in our demanding, rapidly changing, technological society. A teacher education institution has an obligation and a responsibility to assure its public that quality education takes place. The economic necessity of this becomes greater in the more costly programs of advanced study. This paper attempts to make constructive suggestions toward that end.

John W. Struck
State Director of
Vocational, Technical
and Continuing Education
Harrisburg, Pennsylvania

SUMMARY

This paper attempts to identify the role of state education agencies in planning and implementing programs of graduate study in vocational education.

The position taken herein is that state education agencies, along with several other groups, should have a major role in assisting vocational teacher-administrator preparation institutions in improving and up-dating their programs. With the rapid changes taking place in teaching problems and techniques, along with the wide variety of crisis-type problems daily confronting administrators, colleges and universities must permit state education agencies to join hands with them to effect the rapid changes and improvements needed.

The problem is presented on a conceptual level as well as on an implementation or operational level. Examples of present program shortcomings are listed, as well as specific suggestions for actions to improve and correct the situation. The use of professional persuasion techniques is strongly recommended rather than, and prior to, the use of various budgetary controls.

State education agencies have a major role to serve as a catalyst and coordinator in the changing and improving of vocational education advanced study programs. Ideas and suggestions from both graduates and prospective employing groups must be synthesized, and used by state education agencies and institutions of higher education as changes are made. Specific techniques and suggestions are herein set forth.

THE ROLE OF STATE EDUCATION AGENCIES IN ADVANCED STUDY PROGRAMS IN VOCATIONAL EDUCATION

THE STATE ROLE

For a great many years, state Departments of Education have for the main part not even attempted to work with institutions of higher education in the planning of programs of advanced study. Instead, state agencies strongly attempted to emphasize their regulatory roles to enforce state laws and state board policies and regulations.

State agencies have heavily affected collegiate programs, however, through enforcement of certification regulations for teachers, counselors, supervisors and administrators. Certification regulations for public school personnel in many cases were developed and adopted with little or perhaps without any consultation or discussion with college and university administrators who might have to carry out the preparation of teachers, etc. State and local officials have often taken the attitude that they know best what is needed, and it is the collegiate institution's responsibility to change its programs accordingly.

Fortunately, most state agencies have been making major internal changes to remedy this unfortunate situation. Partially as a result of greatly increased federal funds available for various segments of education, most state agencies have made huge strides in increasing and improving the quality of their staffs, and are now working diligently to emphasize three major areas of responsibility: (1) leadership, (2) services to all areas, schools and institutions in the state, and (3) necessary regulatory functions regarding funds, school personnel and students.

With many state agencies now in a better than previous financial position to compete with colleges and universities for highly qualified and experienced personnel, the leadership, consultative, and service roles of these agencies are being greatly increased. Being in a rather unique position between teacher preparation institutions and teacher employing institutions, where its staff can objectively analyze both problems of personnel preparation and the ever-changing needs of employing boards and institutions, state agencies can provide invaluable assistance in the planning of both undergraduate and advanced study programs in the field of education.

The task of planning teacher-administrator preparation programs should not be the sole responsibility of a university. Ideally, this should be a cohesive partnership between the state education agency and university personnel. Each has an important role.

In a recent large vocational teacher education assessment project,[1] the principles or concepts of the role of state education agencies in the expansion of vocational teacher education programs have been enumerated. Because the ideas expressed are applicable here, the following is quoted from this study.[2]

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[1]Professional Development in Teacher Education: An EPDA Vocational Education Assessment Project directed by Dr. Melvin L. Barlow, Division of Vocational Education, University of California, Los Angeles.

[2]Ibid. Quoted from pages 7-13 of a DRAFT COPY ONLY, dated September 1970. Study not completed at this time.

"1. General Responsibility

It is the state's responsibility to see that teacher education programs are available for all vocational teachers. This includes pre-service and in-service, and is concerned with the teachers in the secondary schools, community colleges, technical colleges, and the various adult and manpower programs where preparation for work is offered. In view of the new emphasis and the vital need for teachers and counselors to provide orientation to students in the early grades, the state Department of Education has the responsibility to see that these teachers have the appropriate preparation to carry out this responsibility.

2. Identification of Curriculum Needs

In the process of the evaluation of local programs and in its working relations with vocational teachers, the strengths and weaknesses of existing curriculums become apparent. In addition, the long-range planning indicated by local education agencies and the state indicate new types of vocational programs for which there is a need for curriculum. On this basis, the state is in the best position to identify, to specify the curriculum requirements, and to obtain through colleges, universities, local education agencies, and private sources, the expertise necessary to provide these.

3. Identification of Teacher Education Needs

Because of the unique position of the state Department of Education it is in the best situation to identify the need for vocational teachers. These manpower needs would be identified by number needed in subject areas and levels. The state's role in evaluation and its direct contact with school districts enables it to identify the shortcomings of the teacher's preparation and, in turn, identify the essential content of teacher education programs. Whether the necessary subject matter should be offered in pre-service or in-service programs or both can be indicated by the state agency. In its role of identifying education needs it must consider local and regional needs as well as the preparation of vocational teachers and nonvocational teachers who may be involved in career orientation or in any general relationship to vocational education.

4. Identification of Research Needs

The effectiveness of a vocational program, a curriculum, a method of teaching, and a method of preparing a teacher, are all of vital concern. It is essential that research be carried on to evaluate these different areas as well as to explore new approaches that can be used in the field of vocational education. The state functioning as a communication center is in the best position to identify the essential types of research studies and through its relationship with local education agencies and higher education institutes obtain personnel to conduct these studies.

5. Evaluation of Teacher Education Effectiveness

If the state is to bear the responsibility of seeing that teacher education programs exist and meet the needs of the schools, then it must see that an evaluation of the effectiveness of the teacher education programs is conducted. The different patterns of teacher preparation and the quality of pre-service and in-service preparation provided by an institute need continual assessment. It is also a concern of the state to evaluate the various conferences, workshops and seminars that are held in order to meet the in-service needs of vocational teachers.

6. Coordination of Local and Institutional Activities

The position of the state in its relations with local education agencies and with institutions of higher learning enable it to provide essential coordination between these different levels of education. Frequently in-service needs are identified by local education agencies or by community colleges. The state should assist these programs for their teachers. Because of its close relations with the various institutions of teacher preparation, it is in a position to unite the producer of teachers with the consumer. In reverse, the institutes of teacher preparation who wish to experiment, place interns or student teachers and should be able to call on a state for assistance in identifying cooperative agencies.

7. Dissemination of Information

Because of its close relations with the U. S. Office of Education and the local education agencies, the state is in a position to be acquainted with the latest developments and policies as practiced by these agencies. Colleges and universities may often be limited to the published article or the journal for information. It is the responsibility of the state to see that the information as to the most recent actions, policy positions, personnel changes, legal interpretations, and other actions vital to vocational education be made available to the college instructors who prepare vocational teachers. Unless these instructors themselves are well acquainted with the newest and latest developments, the preparation of new teachers will suffer.

8. Certification and Approval Standards for Teachers

Setting up certification standards is primarily a state responsibility. The Division of Vocational Education in the state Department of Education should continually assess the certification and/or approval standards for vocational teachers. It should seek to make changes when these standards become obsolete or do not fulfill the current needs. It should consult with the local education agencies and the institutions of teacher preparation and then use its influence to obtain these changes as needed.

9. Administration of Funds for Teacher Education

Since funds may be available to the state under the Amendments of Vocational Education Act of 1968, under Part F of the Education Professional Development Act, and from state sources, the state should plan to use these funds in the support of pre-service and in-service teacher education. To the extent that these funds are available, it should provide support to institutions of higher learning as well as to local education agencies interested in conducting in-service seminars, workshops, etc. The state may also wish to use some of these funds in conducting conferences or in-service programs under its own direction. The providing of these funds to the various institutions carries with it the responsibility of the evaluation of the effectiveness of the programs which are supported. These funds as provided to the colleges and universities should enable them to go beyond their routine role of preparing teachers and to serve vocational education more effectively."

THE PRACTICAL SIDE OF THE PROBLEM

The field of vocational-technical education administration inherently has a number of unique problems and situations requiring specialized experience and training that, in many cases, an administrator of general academic education alone does not encounter.

Because of this, and of the rapidly changing needs for new and different types of programs and services to meet the need of all types and abilitied people of all ages, in all parts of each state, the somewhat conventional programs of advanced study for those who are engaged in or aspire to leadership positions in public schools, technical institutes, or community colleges are today inadequate.

Many critics of the nation's public school system have at one time or another critized the school's ability to change in order to keep abreast of current educational needs of youth. Other types of public agencies, departments, and institutions encounter similar or parallel constraints to change and modernization, and most colleges and universities are no exception.

The seemingly simple task of adding a new course is indeed quite time consuming and complex at most large universities. Never-the-less, major changes and reform must rapidly be made in teacher and administrator preparation programs charged with developing and training competent personnel for the field of vocational-technical education.

WHAT NEEDED CHANGES ARE WE TALKING ABOUT?

While it is often very foolish to generalize about vocational teacher education programs conducted by different institutions, several of the most glaring and common inadequacies found in numerous institutions should probably be mentioned.

Absence of training in all or even most of the following areas is never found in one single college or university, but far too few can claim that they are doing very much in their advanced study vocational education teacher or administrator preparation programs about many of the following areas of concern.

Most states are experiencing a serious shortage of competent administrators for the fast-growing number of new vocational schools, technical institutes, and community college technical programs. Since a majority of the doctoral programs and advanced study programs are concerned with training and developing administrators of one level or another, many of the problem areas listed below are concerned with teacher education institution shortcomings of this nature.

Obviously, numerous institutions provide some offerings in these problem areas, somewhere in the college or university. Few graduate students in vocational-technical education programs, however, are guided into, offered opportunities, or even required to take some of these things as they seek to develop their competencies as future administrators.

No relative importance should be concluded from the order in which the following problem areas are listed.

1. Internships for Administrators: We have long provided for "practice teaching" or internship opportunities for prospective teaching personnel. It is just as logical to provide and require administrative internship experiences. With the complexities of the administration of today's large schools, internships need to be more than observation and minimal involvement experiences. One major problem regarding this is insufficient time for real and meaningful involvement on the part of graduate student administrative interns.

2. Preparation for Teaching or Administering Inner-City Programs and Schools: A number of universities are beginning to offer courses including experiences in this, but seldom is this found in vocational teacher-administrator preparation programs. Administrators and teachers who can competently cope with inner-city school problems, and who have had some special training for this, are sorely needed.

3. Techniques of Working with Disadvantaged Persons: This is closely associated with the preceding problem, but is actually needed in all types and sizes of schools. All teachers and administrators must develop competencies for working effectively with disadvantaged persons of all types, and teacher preparation institutions must rapidly include such training in their requirements for advanced degrees in education.

4. Special Education Techniques for Regular Teachers: Special education techniques is an important but often neglected aspect of regular teacher and administrator preparation. Teachers of all kinds, including academic as well as vocational-technical teachers, need to be able to deal more effectively with students who are handicapped in their regular classes. This is different from those specialized programs designed to train specialists who will deal with handicapped students in segregated situations, classes, or schools.

Many authorities now estimate that between 50% and 60% of the students who can be classified as handicapped in one way or another, are in regular schools, in regular classes, under the jurisdiction of regular teachers and counselors.

Greater sensitivity on the part of these regular personnel will make it possible for more of those handicapped students to stay in regular classes and to learn well and do well.

Providing an opportunity for teachers to learn of other specialized educational activities through visits to vocational rehabilitation centers and other programs of this type can also be most helpful in helping regular teachers to better understand the educational problems of handicapped students.

5. Teacher Education Programs Designed to Meet Competency Requirements Instead of Credit Requirements: This, of course, is a joint problem of both state Departments of Education and teacher education institutions. Both must move toward a competency or performance-based approach, and away from the usual credits and courses approach in deciding whether or not people are qualified to do certain kinds of things in education. This requires specifying what they expect people to be able to do, in fairly specific ways. It means identifying the performances that they want teachers, administrators, counselors, teacher-aids, etc. to be able to do. Following this, training programs and experiences must be designed to enable them to perform in these ways. By this method, then, it can be determined whether persons should be certificated, promoted, hired, or given tenure on the basis of their ability to perform.

This is a radical change from most states' approaches to certification, which often says that when a person finishes "X" courses in education and "X" number of courses in this and that, he is then qualified to perform whatever it is! The EPDA program is supporting pilot efforts in this area in the states of Washington, Florida, and Texas. The Texas effort especially is quite extensive, with five institutions all preparing teachers and administrator training programs which are based upon performance rather than on the usual courses and credits criteria.

Interstate reciprocity of certification requirements is another step in this problem area. New York State has taken the leadership in promoting such agreements, and there are now 19 states which have passed legislation and joined in a compact which permits qualified teachers from one state to move to and teach in another state without being required to take additional credits. Twenty-seven states have already agreed to do this, but eight of these have yet to pass the necessary legislation.

Cooperative industry collegiate-level in-service programs can be one method of assisting teachers and prospective teachers to keep up to date with business and industrial advances, thus helping to prepare them to meet competency requirements.

6. Techniques of Flexible Scheduling: Public schools have long been criticized for "lock-step" or inflexible scheduling. Leading educators are today acknowledging this shortcoming and urge all schools to use new scheduling techniques that permit students' educational programs to be highly individualized. Prospective administrators can't learn these techniques by simply talking about them. In many instances, the use and programming of computers for scheduling purposes must be included in the training bill-of-fare. Actual examples must be given to administrators-in-training if they are to really learn how to use these techniques.

7. Practice in Teaching or Administering Cluster-Type Programs
8. Understanding of and Experiences in Team Teaching:

Items number seven and eight are closely related, as team-teaching does involve teachers from several disciplines. Graduate programs should not only discuss these techniques, but advanced study students should actually have an opportunity to work in such situations.

Prospective administrators should also have an opportunity to learn what can and should be done by an administrator in order to facilitate and improve the effectiveness of team teaching and of cluster-type programs.

9. Teacher and Employee Negotiation Skills: Knowledge and skill in this area of administration will unquestionably be not only valuable, but a necessity. Many universities are thinking about offering something in this area of concern, but because of the urgency to develop negotiation skills and knowledges in all administrators, state Departments of Education and school administrators' organizations have taken the leadership in conducting seminars, workshops, conferences, and short courses on this topic.

Universities have just moved too slowly, for the most part, or else have taken a hands-off policy with the attitude that labor negotiations are an unprofessional activity and not the university's problems.

There is an urgent need for colleges and universities, with all their capable staffs, to want to and be able to rapidly initiate new educational programs to meet these newly developing educational problems.

10. Legal Aspects of School Contracts and Administration: Many institutions presently provide some instruction concerning "School Law," but it is most important that this be up-to-date. Defining the role of teachers and administrators as they relate to, (1) the administration of contracts, (2) school board policies, and (3) teacher and other employee groups, is extremely vital today.

11. Techniques of Dealing With Sit-Ins, Demonstrations, Strikes, etc.: Although skills in this area are closely tied to the immediately proceeding problem, many special knowledges and skills have been developed by those who have faced demonstrations and strikes. These experiences have gradually developed into teachable techniques which are of significant assistance to those administrators or prospective administrators who have yet to face this problem personally. When a strike or demonstration suddenly develops, it's then too late to learn what to do!

Again, administrator organizations and state Departments of Education have taken the lead in providing this type of training because of either university apathy, disinterest, or lethargy.

12. Techniques for Meaningful Involvement of Students and Teachers in Policy Determination: Some administrators have been most successful in involving both students and teachers in policy determinations, while many others have been spectacularly unsuccessful. An understanding of these successful techniques is almost a must for today's administrators.

13. Food Service Management and Contracts: Administrators of large school systems may not deal personally with school food and cafeteria problems, but certainly any single school principal or administrator faces this constantly. Poorly run school cafeterias, federal school lunch requirements and restrictions, rising food costs, federal food surplus commodities, vending machines, food service caterers, etc. are a never-ending source of time-consuming problems for school administrators. It seems obvious that prospective administrators should acquire, somewhere in their training program, some minimum knowledges of these kinds of problems, and their possible solutions.

14. Transportation Management and Contracts: As is the case with food, transportation for school students has become a big business. Problems such as designing and scheduling bus routes, cost control, owning buses or contracting for services, maintenance techniques and cost reduction control, and safety programs all add to the administrators woes. Few are the institutions which offer prospective administrators opportunities for learning how to avoid pitfalls and to solve these kinds of problems.

15. Techniques and Skills of Money Management and Budgetary Practices: Extremely rare is the school administrator who has had any formal training in money management. And those few who have obtained this probably obtained it after they got their degree in education administration! Todays

schools are BIG BUSINESS, and while school districts and institutions have business managers or officials, decisions which are the responsibility of the school administrator are the key to the wise use of all available resources. More attention needs to be placed on this phase of an administrator's training.

A plan providing for cooperative in-service programs with state education agencies, business and industry, could give new administrators an opportunity to learn new skills in areas of accounting, financial management, school accounting and reporting practices. Cooperative programs of this type certainly merit experimentation, exploration and inception.

16. 17. Short and Long-Range Planning Techniques Management Information Systems:

The complexity of school management and administration simply cannot be well handled without detailed knowledge and use of both short and long-range planning techniques, together with an adequate management information system.

While the USOE and most state governments are rapidly moving into various forms of a PPBS (Planning, Programming, Budgeting System) surprisingly few university faculty know little more than what words the letters stand for. An intimate working knowledge and understanding of these techniques appears to be a "must" for today's competent administrators and teachers.

New and expanded management information systems are being developed by many states and institutions. This has been triggered by federal reporting and accounting requirements, and by the necessity and desire on the part of administrators and boards of education to accurately evaluate past activities so that improvements can be initiated.

In many instances, colleges and universities have faculty who are very knowledgeable about PPBS and other planning and management information systems, but they are usually located in the school or college of business or economics, and prospective vocational-technical education administrators can rarely take advantage of these training opportunities.

Techniques such as the Belmont System, now being developed by the USOE and state education agencies, should be taught and made available in advanced study programs.

18. School Facilities Design, Maintenance, and Contracts: Of course, we have professional architects and able school boards, but a great many educational monstrosities and monuments to poor judgement and knowledge have been built recently because the chief school administrator knew next to nothing about facilities design. It is essential that new facilities be tied in with program and teaching needs, new developments in materials, heating and cooling systems, sound and traffic control, etc.

Regulations and policies relating to construction and expansion of school facilities are continually being updated by state agencies and State Boards of Education. Too often university staff are not teaching about the latest revisions

of such regulations, and more attention must be given to this problem.

Universities and colleges must re-evaluate their present efforts in this area to see if prospective teachers and administrators are really obtaining an understanding of the new problems, techniques, and regulations.

19. Federal and State Reporting Requirements: Reports, forms, applications, etc. have long been a time consuming, but an essential part of a school teacher's or administrator's job. Usually, new administrators must learn about these on-the-job, with little or no previous knowledge of what is required by State Education Agency Pupil Accounting Offices. Failure to submit various forms or reports on time may cause loss or delay of funds to the school, thus resulting in much criticism of the administrator.

Teacher and administrator preparation institutions must work closely with state Department of Education officials in order to keep abreast of new developments and requirements in this area.

20. Money Grantsmanship: Techniques of designing research, pilot and experimental activities in education, and preparing proposals to secure funding, is of considerable importance today. Many administrators have new and excellent ideas but never get them put into practice. Often, this is due to a lack of familiarity with necessary procedures to obtain adequate funding from state, federal, or foundation sources.

The difference between an average job of administration and an outstanding one, may often be the ability to attract and obtain outside financial resources to a school or institution in order to do a number of "extra" things in education and educational services.

21. Improving Staffing Patterns Through Career Ladders and Differentiated Roles for Supporting Personnel: This innovation in administration techniques has been given some attention by numerous teacher education institutions. Additional efforts must be made to inform current administrators about how to initiate such procedures in their existing systems. State education agencies and administrator organizations have been conducting numerous conferences on this problem. Only through more effective use of our highly skilled and knowledgeable personnel can our schools hope to adequately cope with today's problems and great numbers of students.

22. Staff Improvement Techniques:
23. Establishing Multiplier Effects: These two areas of concern are closely related, but attention should be given to each. Teacher education institutions need to educate future teachers and administrators about the findings of the EPDA program efforts in this area since 1968. Basically, far more effective results have been obtained when whole school staffs have been involved in staff improvement projects, rather than trying to improve one area of a school at a time.

The term Multiplier Effects refers to giving special training or attention to those types of individuals or activities likely to have a continuing beneficial effect on others; a sort of domino effect. Examples would be: teacher educators, supervisors, department heads, content area chairman, etc.

The techniques of doing this need to be observed first-hand rather than by simply being discussed in a classroom situation.

State Department of Education personnel, as well as university teacher educators, must play an active role in effecting these new techniques. These relatively new methods resulting from actual pilot and experimental projects and programs are a vital link in reforming and revitalizing our teacher and administrator preparation programs.

24. Techniques of Resource Utilization: All school personnel experience resource limitations of one kind or another, such as funds, materials and supplies, facilities, equipment, and personnel. A number of recent pilot efforts have shown quite conclusively the advantages of concentration of limited resources, and of developing linkages with other groups which will extend the achievements normally possible within the resource limitations.

Numerous state and federally funded projects show that more seems to be achieved in the solution of school problems if whatever resources are available are concentrated in such

a manner as to make a significant contribution and change in a few areas of concern, rather than distributing a very limited number of dollars to every area of endeavor whereby no one gets sufficient additional resources to make a real impact or change.

In addition to this, available resources can be made to reach farther if "linkages" are built between the school efforts and community-state-university groups so that the resources of these organizations can be tapped by combining efforts on areas of mutual concern.

Many community groups are interested in assisting our schools to improve programs and services, and by working closely with these organizations many additional resources are available to school teachers and administrators.

Developing cooperative relationships with private profit or non-profit educational institutions can be mutually beneficial. Many university staff rarely have an opportunity to visit such schools, especially those training students in non-collegiate programs. Many of these schools are doing some exceptionally fine things, and a mutual exchange of ideas for teachers and administrators would be most helpful in many cases.

Prospective administrators need to see this kind of thing in action, in order to fully understand how to make it work effectively.

25. Adult Education: The naive opinion held by many in education that adult programs and classes are very little different from high school classes is indeed regrettable. So is the feeling by many administrators in public school systems that adult education is the responsibility of "someone else." Today's public schools must be responsive to all segments of the community, to whatever extent possible. Special skills, knowledges and techniques must be used if the adults of a community are to be well-served by these educational institutions.

Most teacher education institutions have a tendency to minimize the importance of preparing both teachers and administrators in this fast-growing area of education. Courses in techniques of teaching and organizing or administering adult education programs are often casually treated by advisers of degree candidates as "something nice to take if you have time." This is a serious error in today's society, where education is rapidly being accepted as a necessity throughout life.

26. Coordination of University and State Education Agency Efforts: A lack of coordination between the individual efforts of university faculty and state Department of Education staff, each of whom are concerned with assisting in the improvement of public school instructional programs and personnel, is a tragic waste of effort.

University teacher educators visit schools to offer suggestions to the instructional or administrative staff, and to assist in the initiation and conduct of pilot and experimental

educational efforts. Often, state department staff likewise make themselves available for similar purposes and consultation, and each may be unaware of the efforts and advice of the other. A planned, coordinated effort by university faculty and state department personnel might well achieve far greater results for everyone involved.

27. Need For Integrated Vocational Teacher Education Departments and Programs: A serious void or gap in vocational teacher and administrator preparation occurs when institutions maintain in their administration and programs a distinct separation of each of the areas of vocational education; i.e. agriculture education, business education, trade and industrial education, etc.

Based upon the Smith-Hughes Act (1917) and the George-Barden Act (1945), this administrative and teaching plan was completely outmoded by the Federal Vocational Acts of 1963 and 1968. The foundations, principles, and many teaching skills and techniques are similar for all vocational education, and it is completely indefensible for universities to maintain old systems, methods, and programs.

SUMMARY: Areas of concern similar to the foregoing can readily be enumerated by researchers, teacher educators, guidance counselors, special education personnel, etc. This list is indicative of the things which school administrators are most concerned about.

Every effort should be made to discover and explore the vital shortcomings of our teacher-administrator training programs in light of new and changing school and institution conditions.

SO WHAT? NOW WHAT?

The foregoing problems represent some of the major areas of concern as experienced and expressed by those who employ the products of teacher education institutions: state education agencies, school administrators, and school boards. Perceptive graduates, both teachers and administrators, also often recognize many of these shortcomings.

Many colleges and universities are too concerned with what has traditionally been considered "professional" type courses. Instead, more time and effort needs to be spent in developing both teacher and administrator preparation programs based upon an accurate analysis of the day-to-day, and month-to-month problems which make up the jobs of teachers and administrators.

Particularly is this critical with respect to administrators, as these jobs have undergone dramatic changes in recent years.

The experiences, advice, and skills of state education agencies (along with many other groups) is urgently needed to assist institutions of higher education make appropriate and much needed changes in their education personnel development programs.

It might also be well to consider the potential of using regional centers and other institutions dedicated to the preparation of teachers, counselors, and other leaders for occupational education. The Ohio State University Center, and other similar institutions, offers outstanding opportunities for internships, etc. for the training and developing of teachers for vocational-technical education.

POSSIBLE COURSES OF ACTION

It is quite evident that every possible effort must be made to get schools, colleges and universities, and state agencies to sit down together to plan, undertake, and evaluate programs of teacher and administrator education.

How this can best be accomplished will, of course, vary considerably from state to state, depending upon the structural arrangements in each state for higher education. These differences range from:

1. New York State, which essentially has the state Department of Education conducting vocational teacher education classes, and giving credits.

2. Numerous states which have a major institution they call THE state university.

3. States like Pennsylvania which has no single state university, but financially aids several private universities (i.e. Pittsburgh, Temple, Penn State, Penn.) with public funds.

In each of the above cases, state Department of Education personnel, or the legislature, have considerably varying degrees of influence or control over the teacher education institutions.

Regardless of the degree of influence a state agency may feel concerning teacher education institutions (it may range from zero to a considerable amount), the task of getting different groups to sit down and constructively discuss the problem can always best be achieved through PROFESSIONAL PERSUASION, rather than through budget control, regulation, or other means of coercion.

A TIME FOR CONCERTED ACTION

While "everyone" seemingly wants action to modernize and bring up-to-date the programs and curricula of teacher education institutions, it is now quite evident that the desires of only a few dedicated university faculty members will not rapidly bring about much needed changes. Nor will simply the desires of a state Department of Education, or the wishes of school boards, or administrators of local schools bring about teacher education and administrator education program changes.

Quite obviously, a concerted effort, by all concerned parties, is needed. Among those major groups which should be consulted when programs of advanced study for the training of teachers, counselors, and administrators of vocational-technical education are planned, are representatives of:

1. large urban school administrators
2. rural school administrators
3. consolidated or "area" school administrators
4. boards of school directors, boards of trustees, and other kinds of institutions
5. teachers
6. business, industry, and other community groups
7. college and university staff
8. state education agency staff

To achieve constructive action, however, someone must initiate and coordinate the efforts of various groups. Recently, Dr. Don Davies, in a presentation at a national meeting said:[1]

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[1]Speech by Dr. Don Davies, Associate Commissioner, Bureau of Educational Personnel Development, U. S. Office of Education. Given before a meeting of state directors of vocational education, and representatives of State Advisory Councils of Vocational Education: AVA Convention, New Orleans, LA, December 1970.

"We have recognized for a long time now, that state education agencies are really going to be the key to the reformation of teacher education programs. This is badly needed in this country.

I have been saying from the platform for the past year or so that if we're going to reform teacher education, and I believe it needs reformation very badly, the leadership in the next decade for that reformation is going to have to come from state agencies.

State education agencies have more power now, more authority now and they have more money now for training and education personnel development than they've ever had before. So the opportunity is there.

State agencies need to take more aggressive leadership in the reformation of teacher education programs. I'm not saying that they need to take over the running of it the way it is. I'm saying that it needs to be changed. I'm saying that it needs to be changed to be more responsive to the needs of the schools, and more responsive to the present needs of our society. That's really what we're trying to do in the Education Professions Development Act."

FIRST STEP[1]

In this fast moving, ever changing society of today, many things are left undone because of a lack of time, and often only the most pressing items are completed. Most administrators have precious little time to meet with their counter-parts in other schools and universities. In one large state studied last year, it was discovered that the deans and higher administrative officials of the several major teacher education institutions hardly knew each other; there simply was no organization or instrument that caused them to meet with one another.

As a first step then, appropriate officials of the state education agency should consider the need for an organization of college and university presidents, or deans, or both, to informally meet to discuss problems of mutual concern--teacher education being one of these. Considerable (although usually subdued) professional rivalry often exists between various institutions, both within and outside of a state, and in most cases administrators of any single institution do not want to appear to be presumptive by calling a meeting of their colleagues. Thus, the top officials of a state Department of Education are in an ideal position to assume the leadership to have college and university officials meet together at regular intervals.

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[1]Interview with Dr. Frederick K. Miller, Commissioner for Higher Education, Pennsylvania State Department of Education, December 18, 1970.

This then, is a beginning, a first step toward mutual confidence and understanding between key personnel of higher education institutions and staff of the state agency. Much care must be exercised to make it very clear that the state agency has not called the meeting in order to inflict their opinions or wishes upon institutions of higher education. The state agency should serve as a catalyst and instrument to achieve mutual respect.

A SECOND STEP

In more states than not, there is already in existence an organization of chief school administrators which can be called upon to work with the state agency and the institutions of higher education which are involved in teacher and administrator preparation.

State agencies should ask these administrator's organizations, and other key groups to appoint a committee for the purpose of assisting in the improvement of vocational teacher and administrator education. Major roles of such a group would be: (1) to help identify and clarify what, from their point of view, are the shortcomings of vocational teacher-administrator education programs and graduates, and (2) to recommend and assist in the development of ways to achieve the needed changes.

It is vital, of course, to have constructive ideas and suggestions from several sources and groups, so that the best ideas from all areas may be incorporated in the plans for improvement.

A THIRD STEP

The establishment of an advisory committee consisting primarily of those not engaged in teacher education might well serve a very useful purpose. This could consist of representatives of businesses and industries such as Philco Tech-Rep, RCA, IBM, etc.

It is not unrealistic to expect educators, and in this case particularly the university personnel, to be somewhat defensive about the on-going teacher and administrator preparation programs. Thus this "non-establishment" group might well bring new insights into the task of improving the teacher-administrator preparation program.

ADDITIONAL STEPS

The state agency top leadership is in an ideal position to serve as the catalyst and focal point for coordinating and initiating new things in the vocational teacher-administrator preparation programs involving several institutions of higher education.

Following soliciting assistance from the school administrators throughout the state, numerous other groups should be involved:

Baccalaureate and Graduate Degree Graduates: In order to get some first-hand insight into these programs, opinions of the various programs and schools should be obtained.

Opinions from both recent graduates and from those who have been working in teaching or administrative positions for a while since graduation, would be especially desirable. Recent graduates would have all of their experiences, or lack of them, fresh in their minds. Those who received their degrees one to five years ago should be able to more objectively offer suggestions for improvement.

Having a state agency seek and obtain these opinions and suggestions is far more desirable than having the institutions do this themselves. Persons who may someday wish to seek additional graduate work from an institution may have a real hesitancy about being candid, when asked for suggestions by that institution.

School Board Members: What characteristics, training and knowledge school boards seek in their school administrators today is of direct concern. Rarely have institutions of higher learning sought the advice of such groups. This is a serious omission, since these boards are the prospective employers of the products of graduate schools of education.

Industrial, Business and Community Leaders: Suggestions from these and any other important groups should also be obtained. Unfortunately, many citizens have less than a high opinion of public schools and of school personnel. Efforts must be made to pin-point what people want and expect from the professional educator that they sometimes feel they are not getting.

Vocational School Graduates: Many states are now expanding or extending graduate follow-up studies. Opinions from these former students might well be helpful in identifying areas of teacher preparation which need to be improved.

PUTTING IT TOGETHER FOR ACTION

Rather than trying to have representatives of all of the above mentioned groups meet together to discuss this with faculty from teacher-administrator preparation institutions, the state agency should try to document and summarize the suggestions from each source. It is important to know from what general group each suggestion comes so that its importance and validity may be put into appropriate perspective.

Institution representatives and state department staff should next thoroughly explore together possible courses of action and desirable changes needed to improve the end product; the graduating teacher, counselor, supervisor, administrator, researcher, aide, etc.

Cooperative Use of Staff: Universities must be strongly urged to rely heavily on knowledgeable state department staff or local administrators for certain university teaching activities, as in certain areas, particularly some problems of administration, no one is more knowledgeable and up-to-date concerning them than various state and local staff who are working with them daily. In numerous cases teacher educators are quite far removed from today's teaching and administrative crisis problems, and state agency or local staff are more familiar with the situations and possible solutions.

Instructional units involving such things as: reimbursements, state agency and federal reporting and application forms, dissension and strikes, negotiations, facilities design, approvals,

and funding are often better presented by knowledgeable staff who work with these constantly.

Areas of concern, such as are listed on pages 8 to 22 should each be evaluated to determine what staff can best present these ideas and materials.

It is through such cooperative use of staff that an institution of teacher-administrator preparation can keep "tooled up" with knowledgeable staff and personnel to take on and keep up to date on these exciting new areas and programs.

Likewise, state agencies need to use university and college staff more, particularly in certification revisions and considerations. These staffs can cooperatively solve many problems far more adequately than either can by working separately.

Need for Comprehensive Vocational Teacher Education: State education agencies and college and university personnel must urgently strive to develop and achieve comprehensive teacher-administrator preparation programs. As used here, the term "comprehensive" implies that all areas of vocational-technical education be organized within one school, division, or department.

The separate and specialized departments such as agriculture education, business or office occupation education, distributive education, trade and industrial education, and home economics education cannot possibly prepare, either adequately or economically, teachers and administrators for vocational education today. One leading institution, during the 1970-71 term, conducted five separate (and supposedly different) courses in principles of

vocational education; each was offered by the separate departments of agriculture education, home economics education, etc.!

State department personnel and school administrators have long recognized the many commonalities among the various fields of vocational education. Among the more easily recognized are: Principles of Vocational Education; Foundations of Vocational Education; Audio-Visual Aids for Teachers of Vocational Education; Mass-Media Teaching Techniques for Teachers; Shop-Lab Safety; Adult Education Techniques; Facility Designing; Student Control and Management; Materials Storage, Handling and Control; Evaluation and Testing Techniques and Design; Individualizing Instruction, Educational Psychology; Motivating Learners; Techniques of Coordination and Supervision, Administration of Vocational Education, etc.

Only a few things need to be offered solely for agriculture teachers, trade and industrial teachers, etc. Specialized teaching techniques, for each area of vocational education, are needed in addition to more basic and general teaching methods courses which could be taught to all prospective teachers. This is insufficient justification, however, for totally separate teacher-education staffs for each area of vocational education.

Some universities have already reorganized their departments and staffs, but far too few have accomplished this. State education agencies need to press the teacher preparation institutions very hard to achieve this coordinated, comprehensive organization.

ADDITIONAL METHODS TO ACHIEVE CHANGE

Professional persuasion, cooperation, and coordination are by far the more desirable methods of achieving reform of the vocational teacher-administrator preparation programs. No longer can the content and design for this important task be left solely up to faculty of the institutions, however, and all conceivable methods must be employed in order to accomplish the task.

Purchase of Services Techniques: As an inheritance from many years of providing financial assistance to colleges and universities to support vocational teacher education programs, many state education agencies find themselves committed to providing, with specialized state and federal vocational funds, for the on-going support of many, if not most, of the permanent university faculty and staff for vocational education. This type of funding procedure will not, in most cases, be an assist in obtaining the reformation currently needed so badly in many of these programs.

Many state education agency administrators now feel that the operating budgets of each teacher-preparation institution should support all permanent or regular staff, for all schools and departments, including vocational education. Federal funds appropriated for vocational education could then be used to provide those desirable activities that could not be afforded without the federal funds: the federal funds would truly be supplementary, as the law requires, rather than supplanting.

Using federal resources in this manner would put the institutional faculty on a firm on-going fiscal basis, with opportunities each year to participate in exciting new projects and activities funded through the annual federal appropriation for vocational education. In this manner, the annual fluctuations in federal funding could not jeopardize faculty salaries, but would be available to do many new things in vocational teacher-administrator preparation not possible within regular budgets.

State education agencies could, under this method, put special emphasis upon developing new activities not presently offered by the teacher preparation institutions. State education agencies could in effect say to these institutions: "Here are some areas of concern that we would like to see made available as a part of the teacher-administrator programs. If you cannot afford to add them to your current offerings, we will pay for them, so that we get graduates from your programs with a more comprehensive training."

In other words, this would be a system of purchase-of-stipulated-services. If the institution is interested in receiving these funds, then they must provide the required changes. Federal vocational funds, under this system, would <u>not</u> be used for regular on-going teacher education activities, but rather for new and expanded types of programs and services as intended by the congressional leaders who passed the Vocational Education Acts of 1963 and 1968.

An institution's commitment to vocational-technical education might well be an important criteria for making federal vocational education funds available. Vocational education is such an important area of the total task of education, that the time is certainly here when all education majors should be required to have some vocational education in their total teacher preparation program. When this happens, real leadership in this field will spring up, and a university can be said to have a real commitment for vocational education.

Another way of saying it well was expressed at a recent conference: "A measure of commitment can be determined by an assessment of the amount of innocence a university will tolerate on the part of its graduates!"[1]

There is a growing feeling by state education agency leaders that state universities have as much responsibility to prepare teachers for vocational education, as for any other area of elementary or secondary education. These schools or departments of vocational teacher education should be a part of the regular institution budget, as are the costs for preparing teachers for other specialized types of education.

It seems axiomatic that state universities have as much responsibility to prepare teachers for vocational education as for any other area of elementary or secondary education, but so

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[1]Comment by Dr. Gordon I. Swanson, University of Minnesota, at an EPDA Committee Meeting, February 16, 1971, Washington, D.C.

far it doesn't appear to be borne out in practice. Fiscal support in this manner would then enable the available federal dollars to support new, innovative, pilot, and experimental activities so badly needed to up-date our vocational teacher-administrator preparation programs.

Educational Vouchers Technique: Another technique of stretching available dollars for the training of teachers and administrators of vocational education is the use of "educational vouchers." This method provides for payments to teachers and prospective teachers, enabling them to purchase portions of their training and education at approved institutions, with state or federal funds.

Funds can be provided in this manner for the preparation of vocational counselors, supervisors, administrators, etc. as well as for teachers. Many systems can be devised relating to this technique, using either advanced payments or reimbursements.

Experiments with these methods indicate that individuals involved in such programs choose their educational expenditures very carefully, attempting to make "their" dollars go as far as possible. The end effect often results in improved program offerings in addition to obtaining a lot of training for the amount of dollars involved.

Accountability Technique: Most institutions involved in vocational teacher-administrator preparation have strongly preferred State Boards for Vocational Education and the state education agencies to provide them with federal vocational education funds, based upon faculty salary needs rather than on some productivity basis.

Congress and the USOE are now pressing states and local education agencies for greater accountability of funds. Some system of assisting institutions of higher education with their costs of preparing vocational teachers and administrators might well be based upon the quantity produced (graduated) and the quality and comprehensiveness of the training program offered. In effect: more and <u>better</u> production makes more money available!

Such a system might well do much to cause more careful consideration of the activities and costs of vocational teacher preparation.

The ideas and suggested courses of action listed in this paper are not presented as a completely exhaustive study of the subject, but solely for the purpose of providing a basis for beginning actions and as a catalyst for generating additional ideas and suggestions.

Each state has unique vocational teacher-administrator education problems, requiring individualized solutions. It is hoped that the ideas presented herein will be useful to the reader for either adaptation or adoption, and that additional and even better ideas will be generated as a result of these beginning suggestions.

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THE NATURE OF APPROPRIATE INTERNSHIP AND PRACTICUM ACTIVITIES FOR ADVANCED STUDY PROGRAMS IN VOCATIONAL EDUCATION

An EPDA Project

Involving

Fellowship Programs in

Vocational Education

David Bjorkquist
Harold Binkley respondent.

PAPER FOR DISCUSSION

BY

INSTITUTIONAL DIRECTORS OF FELLOWSHIP PROGRAMS

AND

STATE DIRECTORS OF VOCATIONAL EDUCATION

Bureau of Educational Personnel Development
Vocational Education Personnel Branch
U. S. Office of Education

in cooperation with

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Minnesota State Department of Education
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Columbus, Ohio

THE NATURE OF APPROPRIATE INTERNSHIP AND PRACTICUM ACTIVITIES FOR ADVANCED STUDY PROGRAMS IN VOCATIONAL EDUCATION

by

David C. Bjorkquist
Associate Professor of Industrial Education
University of Missouri-Columbia

Ideally, education is a prescriptive process. In this the learner discerns his needs and undertakes those learning activities which will remedy his deficiencies. Likewise in Socratic teaching, questions are used to probe the learner to find those areas in which his learning is insufficient. Through teacher's questions and student's answers the learner explores new areas of thinking and develops his abilities. In the contemporary educational setting the teacher is viewed by many as a manager of learning activities. He diagnoses the inadequacies of his students and makes appropriate learning activities available. As in the branching program used in computer-assisted instruction the learner is constantly seeking his level of competency so that he may progress to new learnings.

In a broader and less precise sense instructional program planners design learning activities to help students reach learning objectives. Departmental faculties anticipate what their students need to know and develop courses to fit these needs. Textbook writers envision the status of those who will read their books, and through the use of textual material will bring the learner to a pre-determined point of understanding. Systems of prerequisite courses are often used to specify starting points for students embarking on courses of new learnings. Although such systems do not allow learners to

achieve the starting points in individualized ways, they do serve to specify a point at which prescriptive teaching-learning activities may begin.

Basic to prescriptive instruction are two functions--diagnosis and treatment. It is not the purpose of this report to describe how diagnosis should take place but rather to describe two types of treatments and to suggest some educational maladies these treatments can be used to combat. The two types of treatments are internships and practicums. More specifically, this report will be addressed to three questions relative to internships and practicums.

1) What are they?

2) In what circumstances should they be used?

3) How should they be administered?

What Are Internships And Practicums

Description

It may be argued that internships and practicums are not subcategories of some major classification but in reality internships are a form of practicum. For purposes of this presentation, they will be viewed on a continuum as means of making educational experience more realistic (See Figure 1).

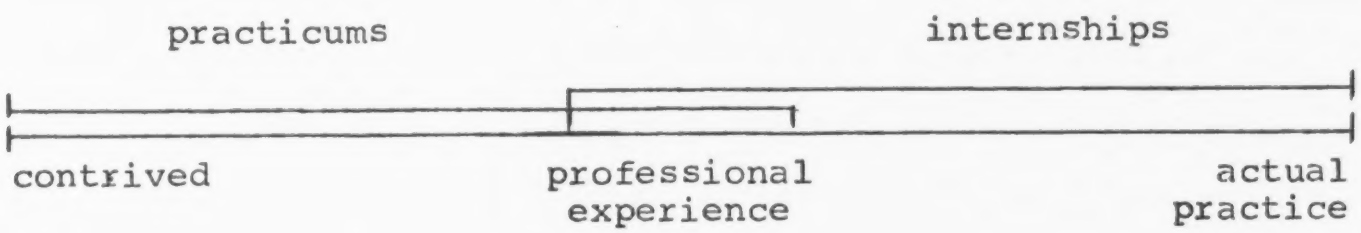

Figure 1. Practicums and internships on a continuum of professional experience.

Internships and practicums are both means of relating educational experience to the practicalities of an employment

situation. Besides differing in degree of realism, they differ in the location of occurrence and in the control which can be exercised over the experiences included within each. An internship is usually thought to occur in the place where actual employment occurs. Practicums will more often occur in a classroom, laboratory or other educational setting. The problems faced by an intern are selective with regard to the professional field and the level of practice, but their frequency and order of occurrence follows the random pattern normal to the standard setting for practice (Rex, 1968). Practicum experiences usually involve some form of simulation and are contrived to study some complex real-life phenomenon under controlled conditions (Alexander, 1967).

Newell (1964) suggested three components of a bona fide internship: 1) must be a phase of professional education which comes after or near the completion of a formal program of professional preparation; 2) must involve a considerable block of time (at least one semester on a full-time basis or the equivalent); 3) must involve the interns carrying real and continuous responsibilities in the field under the competent supervision of a practitioner and a sponsoring university or college. Rex (1968) defines internship as "an experience in 'reality' in which the knowledges, the skills and the judgment of the intern are put into play in solving the problems which characterize professional practice." [p. 19]

The practicum is a means of approximating full-scale real-life organizational behavior in the laboratory. In this environment the problem can be simulated and, importantly, learning can be facilitated with feedback of objective and

accurate information. Models for practicums may take many forms including mathematical equations, PERT diagrams, computer programs, physical objects, and role playing. Built into practicum activities are opportunities to try innovative approaches, identify the essence of problems as they arise and evaluate the consequences of alternative courses of action. Within a practicum situation this can be done without adverse effect on the learner and those normally involved in the situation.

Internships and practicums may both be characterized by their adherence to the reality of problems faced by practitioners. The internship places the learner in the situation where these problems occur. In doing this the problems occur as they would in the more or less normal happening of the job. Little control is exercised over the problems faced by the learner in terms of the sequence or difficulty of problems. In a practicum situation the experience is contrived, the problems are placed before the student in a planned sequence, and the practicum system provides for feedback to the student so that he may judge his reaction to the problems about which he made decisions.

Purpose

Internship. The first named purpose of an internship by respondents in a survey conducted by Eschbacher (1965) was "to provide a practical relationship between education . . . theory and practice." [p. 34] It was concluded that internships in any field usually have as a goal the correlation of formal, theoretical training with actual practice in a realistic situation. Furthermore, they offer under supervision and guidance an initiation into decision-making authority roles and corresponding responsibilities through the handling of actual job problems.

In medicine the internship provides a period of adjustment to the role of the doctor or "learning the ropes" (Miller, 1968). This involves two stages of adjustment. The intern begins with an initial perspective. This is characterized by a set of opinions about responsibility as an intern. These opinions are strongly influenced by others. At a later point an operating perspective is achieved. Here the standard of performance is more often established by the intern himself in that he is familiar enough with the situation to know what is expected. The intern is more or less free to determine his own level and direction of effort. He is beginning to define his responsibility. Perceptions of professional function should be developed which will be carried from internship into practice. In a conceptual model Rex (1968) suggested that internships should develop three phases of personal identification: self-awareness, role, and professional community. This model is shown in Table 1.

Table 1

CONCEPTUAL MODEL OF THE INTERNSHIP IN PROFESSIONAL TRAINING

SELF	ROLE	PROFESSIONAL COMMUNITY
Personal capability	Generalized expectation	Ethical standard
Aspiration level	Self-Other perception	Rights-Obligations
Tendency toward specialization	Situation analysis	Authority-Autonomy
Professional commitment	Specific expectation	Professional rights

(Rex, 1968, p. 23)

According to the model it can be expected that the intern will assess his own capabilities in the job and consider what level he would like to achieve in the profession. He will make some decisions about specialization and some commitment to the profession. Relative to his role he will learn what the profession does and become aware of his effect on those with whom he comes in contact. He will learn the time and place aspects of professional practice and the expectation the professional holds for himself. In identifying himself in the professional community the intern will develop expectations as to what should occur where dishonest, insincere or incompetent services are sought. The intern will learn his rights and obligations in the profession, what authority is over him, his degree of autonomy, and the limits of professional practice.

Rex (1968) stated "internship is a learning experience provided for selected and specially prepared individuals who aspire to become professional practitioners." [p. 19] The internship is normally a terminal experience immediately preceding the granting of full professional status to the candidate. As such, it offers opportunities for learning which are unique. It should, therefore, have purposes which are different from other places of education.

The major purposes of internships are to relate theory and principles to professional practice and for the intern to gain a sense of personal identification within the profession. Numerous other purposes can be suggested not all of which have to do with education of the intern. For example, a university may use internships to develop improved relationships with those agencies cooperating in the placement of interns. Agencies

cooperating with universities in the supervision of interns may view the internship as a means of getting some particular work completed.

Practicums. Practicums may be developed in a wide variety of circumstances; and, therefore, their purposes may differ greatly. They may be restricted in scope and limited in time or they may be used to integrate several other educational experiences and consume a relatively long period of time. In general the purposes of practicum experiences are to: 1) learn and practice the efficient use of diagnostic techniques, and 2) learn and practice the identification and evaluation of alternative actions.

The purpose and objectives for practicum experiences should be drawn from realistic problem settings in professional practice rather than from the academic setting. An analysis of the course work completed by a student will suggest the level of practicum problem he is ready to deal with, but it should not suggest the purpose of the practicum. One familiar with the practice of the profession to which the student aspires can well suggest problems for practicums. This might be illustrated by setting a contrast. Rather than developing a practicum to integrate course work completed in higher education, vocational education, and sociology, it would be better to conclude that the student with those experiences is now ready for dealing with certain practicum problems. On the basis of this a practicum might be organized for the purpose of diagnosing, identifying, and evaluating alternatives in a problem of student unrest on a college campus. Within the framework objectives relating to the following factors could be written:

1) proportion of available information sources used, 2) number of different statements of the problem made, 3) proportion of factors bearing on the problem identified, 4) number of alternative solutions generated for consideration, 5) number of possible consequences considered for each alternative, 6) number of degrees of freedom available to the decision maker as a result of choosing a solution, and 7) number of instances of correct application of principles (Alexander, 1967).

After students preparing to be vocational administrators have completed a course in the philosophy of vocational education and an introductory course in administration, they might be presented a practicum problem. The purpose of this practicum would be to utilize the philosophy of vocational education and principles of management in describing the vocational offerings for an area vocational technical school in a hypothetical community. Details of the community could be described so that the student might have practice in diagnosing a situation and identifying and evaluating the alternatives that might be recommended. The purpose of a later practicum might be to analyze the cost of each of the courses offered within an area vocational school program. Here again, a real or hypothetical case could be presented so that the student could deal with a realistic problem. The purpose of one practicum for a student preparing to be a researcher might be to explain the implications of a research study for a local school system before a group playing the roles of school board members. A more complex practicum problem might have the purpose of relating the student's preparation in one of the behavioral sciences to vocational education through the design of a research study.

A problem situation could be taken from actual happenings in a school setting which would require the researcher to draw upon his knowledge from the behavioral sciences in designing a research study.

If practicums are to be effective in giving the student practice in diagnosis and the identification and evaluation of alternatives, it is essential that he be provided with feedback. Here some of the technology and instructional media systems of education can be used. It should be possible to transplant much of what is being done in the preparation of student teachers into other kinds of practicum programs. Observation scales have long been used to give student teachers reports of their teaching behavior. To increase the objectivity of the observations, interaction analysis schemes were developed. Tape recordings were found to add a dimension to the feedback given a teacher. With the advent of video tapes the visual sensory channel was added. Microteaching units have been set up and used in teaching practicums and have been combined with the use of video tape recordings to develop component teaching skills.

When Should Internships And Practicums Be Used

The question of when internships and practicums should be used refers to the circumstances of their use rather than the time of their use. Within the prescriptive education format the conditions under which the treatment is applied may be a major determinant of the results. In this consideration, two over-riding questions must first be answered. Is the experience effective in producting results? Are these results produced efficiently?

Effectiveness

The question of whether or not internships and practicums are effective may be academic. Racster and Tolbert (1969) in a study of internships in vocational education leadership training suggest that one limitation is that there are no means to evaluate objectively. This is reinforced by Rex's (1968) suggestion of the difficulty of attributing the performance of an intern to the internship as separated from prior learning experiences.

Although internships cannot be easily credited with producing educational gains, former interns report they provide helpful experiences. In one such study in educational administration (Johns, 1966) these helpful experiences were working: 1) in various offices, 2) in out-of-school programs (PTA and community service), 3) in extra-curricular activities, 4) in special school programs (safety, fire and emergency, audio-visual), and 5) with the master schedule. This is not strong evidence of their effectiveness; however, it may be safe to assume that internship and practicum programs can be made effective. If enough resources are applied to these types of experiences, they can be made to produce desired effects on students. Therefore, the important question becomes one of how this can be done efficiently.

Efficiency

Efficiency is attainment of an objective at the lowest possible cost. One program may be described as relatively more efficient than another, or efficiency may be described as units of gain per units of resources expended. Whether or not a program is sufficiently efficient is open to the judgment of the

program administrator. In other words, what quantity of resources is the program administrator willing to commit to the production of desired levels of gain?

Internships: Hartley and Holloway (1968) suggested four liabilities and problems of the internship all of which relate to the question of program efficiency. They were: 1) relatively high cost of preparation, 2) considerable investment on the part of institutions cooperating in internships, 3) faculty time required to provide an adequate experience, 4) difficulty of encouraging cooperating institutions to provide an adequate role for learning and performance, and 5) difficulty in developing proper working relations between universities and cooperating institutions. The Handbook for the Development of Internships Programs in Education Administration (Newell, 1952) suggests that an intern should have a sponsor in the field and a university coordinator should be directly responsible for the internship program. It is further suggested that a full-time coordinator can be expected to supervise from 15 to 20 interns.

The level of resource commitment suggested above is not all inclusive of the investment that can be made in the management of internships. What then should be budgeted toward making internships effective? Unfortunately, the relationship between output from internships and input of resources is not known. Therefore, each institution having an internship program should decide how much they will commit to their internship program and determine to make the most efficient use they can of it. Rather than attempt precise measurement of the product of internships, attention should be given to establishing a rational base for their management and developing an internship process in accordance with it.

Practicums: The cost of practicum experiences may vary greatly. The expense of a computerized decision-making game with analytic feedback to the player may be considerable. On the other hand, a simulated school board meeting with roles played by students may not involve any capital investment and a relatively small amount of instructor and student time. Expectations of output for practicum activities should vary greatly as well. The determinants of output will, in large measure, be objectives and the ability of the practicum designer to generate realistic problem experiences. Practicum experiences can be expected to generate: 1) high student involvement creating excellent motivation for learning theories and for discussion sessions, 2) ego involvement, motivation, self-evaluation, and comparison having introspective and broadening effects, 3) situations in which theory can be tested by applying insight to the solution of realistic problems, and 4) problem solving sessions to promote skill in situational analysis and decision making (Weinberg, 1965).

A practicum is not a substitute for an internship, but there are some objectives that may be achieved more efficiently through a practicum. The converse of this is probably just as true. Therefore, it is not practical to try to do in an internship what can be done more efficiently in a practicum. There might be considerable "hit or miss" in achieving a learning objective relative to evaluating the alternatives in planning a series of short courses for inservice teachers if done through an internship. However, a practicum would not make possible the realism and benefits to be derived therefrom of an internship including this experience.

Readiness for Internships and Practicums

Not to be inconsistent with the concept of individualized diagnosis and treatment for educational gain, internships and practicums are applied best when they are applied to meet the needs of individuals. At this point, however, we make a compromise. We do not look entirely to the individual's needs to determine what internship or practicum experience he should have. More often, we must design these experiences to fit the average of some real or hypothetical group and expect those who are going to participate to prepare themselves for these experiences. This means that a state of readiness should be achieved by the individual for an internship or a particular practicum. It may also mean that some individuals never achieve that state of readiness. At what point is an individual best prepared to benefit from internships and practicums? When can these experiences be used effectively and efficiently?

Internships. It was stated earlier that one of the primary purposes of an internship is to relate theory and principle to professional practice. This implied that the prospective intern must know certain theories and principles so that he can put them into practice during an internship. One means of defining the state of readiness to be achieved by the student before entering an internship is in the form of competencies. These competencies can be derived from an analysis of what the intern will be expected to do on the job. For example, the individual who is to intern as a researcher should have competency in the use of statistical analysis and research design. Similarly, the prospective area vocational school director should be competent in the interpretation of federal legislation

and the state plan. A listing of broadly based competencies might be prepared for each area in which interns are to be trained. Such a listing would indicate the theories and principles which it is expected the intern will put into practice.

If each student is to have achieved a set of competencies prior to entering internship, some means must be devised for measuring these competencies. The successful completion of certain course requirements could serve as one such measure. In addition, performance by the student in practicum experiences could be a measure of competency. More formalized measurement such as written examinations could be used. The measure of competency could very well involve some selection and judgment on the part of the institution accepting or considering the individual for intern employment. It is important that the intern have a solid foundation of principles and theories to carry into the internship. It should not be expected that he will acquire these competencies as an intern.

Practicums. The point of preparedness for practicum experiences is not as firm as that for internships. This is in part because the level of complexity of practicums may be more nearly fitted to meet the student's needs. Students may have their first practicum experience during the early weeks of their formal preparation. At this point these might have limited objectives. At later stages the practicum problems should more nearly approach the situation, the level of complexity, and the reality of actual practice. A student should then be able to apply more theory in the solution of problems drawn from the field he is to enter. Progressing from limited control to more realistic and complex experiences, one practicum

may be used to measure the student's readiness for the next practicum. As the student demonstrates his ability to identify options and consider the results of alternative decisions in practicums with restricted objectives, he may be judged ready to progress to practicums with more complex variables.

How Should Internships And Practicums Be Administered

Fulfillment of the objectives of internships and practicums will in large measure be dependent on the way in which these programs are administered. The value of these programs may be lost unless they are carefully planned, supervised, and evaluated. The administration of internships and practicums should be guided by the central purpose of these activities. Without this base decisions may be made for the wrong reason resulting in faulty program operation. In the interest of capitalizing on the advantages of an internship and fulfilling one of the educational needs of the student, it seems imperative that the guiding principle in making decisions be that an internship gives the student experience in the use of educational theory and principle in professional practice and a sense of personal identification within the profession. The guiding purpose for administering practicums should be for the student to gain experience in diagnostic techniques and the identification and evaluation of alternative actions. Internships and practicums should be implemented within these purposes.

Implementation of Internships

Objectives. Objectives stated for internships should indicate what the intern will be competent to perform at the conclusion of his internship experience and should be closely

related to the competencies which he is expected to have prior to entering the internship. For example, the list of competencies may indicate that the prospective intern will have an understanding of the development of criteria for evaluation, the construction of certain types of evaluative instruments and techniques for analysis; but it may not state that the prospective intern is able to conduct an evaluation before internship. However, the latter competency may be an objective for the internship. In other words, the internship becomes the synthesis stage in learning to evaluate.

The validity of a set of objectives for an internship will be enhanced by including inputs from individuals representative of those who will sponsor interns in the field. If interns are to be placed in state agencies, research coordinating units, public employment service, and industry, then representatives from these agencies should be involved in the preparation of the internship objectives. It will be most beneficial if these individuals are included at an early planning stage of the total educational program. Then they can be called on to assist in the development of the competencies necessary for entering internships as well as the development of the objectives for the internship. This process will serve two basic functions. First, it will serve to improve the quality of the objectives and competencies by injecting the assessment of practitioners. Secondly, it will tend to improve communication from the university preparing the interns to the agencies that will sponsor them. This will help the sponsoring institution to know what the state of the intern's preparedness is when he comes to the internship and what expectations

the sponsoring agency may have for experiences to be provided for the intern and responsibilities the intern is prepared to accept. The intern will benefit if early discussions between the university and the sponsoring agency are cast in a framework of what the intern is to learn through his internship experience.

Ivins (1952) in describing internships for social workers stated "in the relationship between the graduate school and the field agency, we must have the same general objectives, and we've got to have the same belief in theory and the same belief in basic principle that is taught in the agencies with which we work." [p. 39] The early investment of time spent with practitioners in the field in establishing this type of relationship should have a payoff throughout the internships. It will be helpful in establishing duties and experiences for interns and should assist in carrying out their supervision and evaluation. This is necessary so students will know what their internship will prepare them to do and what competencies they will be expected to achieve before admittance.

It is conceivable that each individual internship would have its own set of objectives. This would probably be the case if the principles of developing specific behavioral objectives were strictly adhered to. Without getting embroiled in a discussion of the merits of behavioral objectives, it would seem feasible to state objectives by type of internship. For example, it would be possible to state groups of objectives for vocational education research internships, local vocational school administration internships or vocational teacher education

internships. Emphasis on objectives relative to a specific internship position would tend to limit the educational experience of the intern and perhaps limit his employment opportunities.

Placement. Another crucial point in the success of an internship is the selection of locations for placement. This provides one more opportunity to individualize the educational process for the student. However, this step is greatly influenced by the availability of internship placements. The number of internship locations available would not have to be observed to make supervision manageable. Beyond that the placement of interns should be individualized. A student preparing in administration could conceivably have placements available to him at the state department of education, a regional office of the U. S. Office of Education, a community college, an area vocational technical school, a local vocational high school program and the central administration of a large school system. In matching the internship placement to the student's needs, it may be decided that he should spend his time under the supervision of an administrator who is responsible for post secondary programs in an area vocational technical school. On the other hand, it may be in keeping of the student's background and future plans to give him shorter periods of experience at the community college, the area vocational technical school and local vocational school administrative levels. This is, perhaps, a gross example of how internship placements can be individualized to fit the student.

Regardless of the location or pattern of internship, it is basic that there be an understanding about the internship between

the university supervisor and the field agency sponsor. It is doubtful that an internship could succeed where the university sponsor viewed it as an educational experience with the opportunity for the intern to put theory into practice if the field agency viewed this as a means of getting a specific job completed. Racster and Tolbert (1969) reported that one of the failings of an internship program in vocational education leadership was that some field agency sponsors had specific jobs they wanted completed by the interns. As a result, the interns experiences were limited to those which grew out of the completion of this one task.

The responsibilities of the intern might more aptly be described as a course of study. As such, the internship should be structured to include a variety of experiences with different levels of responsibility. The intern should be responsible to make some decisions, advise in some decisions, and observe other processes. An intern in vocational guidance might observe in the selection of aptitude tests, share in teaching of an occupational exploration class, and be responsible for the organization of an occupational information file. The field agency sponsor may well be the one who finally determines what experiences the intern has; however, the university supervisor and the intern himself should have some input into this determination. A listing of experiences to be included in an internship may well become a progress chart and certainly provide topics for discussion during evaluation sessions by the supervisor.

Not all students will be ready for internship at the same time (Newell, 1952). The university faculty should take part in consideration of the student's readiness for an internship.

In addition, the field sponsor should have the right to refuse an intern. Since the field agency sponsor will have an investment of time and will probably pay the intern a salary, he should have some say as to who the intern will be to work under him. The prospective field agency sponsor should be provided with credentials for the intern so that he may have information on which to base his selection. These credentials may later be incorporated in the official placement file of the student with the university.

Safeguards should be taken at the time of placement to assure that the intern will have real work to perform as opposed to "make work projects." A salary paid to the intern by the field sponsoring agency will help to make certain that the intern is given work that is of importance to the sponsor. The salary should also affect the intern's commitment to the work he is asked to do. However, the field agency sponsor should not be allowed to restrict the intern's duties to one type of production so that he might get his "money's worth." Needless to say, the salary should help the intern to meet the increased expenses which he probably will incur because of the internship.

The majority (57 of 100) of administrators surveyed by Eschbacher (1965) suggested that there be a formal agreement between the university and the agency cooperating in the sponsorship of the intern. An additional 31 suggested that such an agreement should exist between the cooperating agency administrator and the intern, and 18 suggested that the university supervisor and the intern should have a formal agreement. Seven of the 100 administrators believed that no formal agreement was necessary. The agreement may be rather general in nature with

the objectives and responsibilities of the intern appended to it.

Supervision. Adequate supervision of interns will require a major program operation outlay. Three individuals--the intern, the cooperating agency sponsor, and the university supervisor--will have major roles in this function. The cooperating agency sponsor, in part, serves as a model for the intern. This supervision is intended to serve as a guide, support and encouragement conducive to the professional development of the intern. The major responsibility of the cooperating agency sponsor is the assignment of duties and day-to-day supervision of the intern.

The university supervisor will divide his attention among many more interns than will the cooperating agency sponsor. It has been recommended that a full-time supervisor can supervise from 15 to 20 interns (Newell, 1952). Contacts of the university supervisor with the intern will be on a regular periodic basis. The frequency of visits by the supervisor to the intern should probably not be less than once a month.

Because of limitations on the time of the university supervisor his visits to interns may not be as frequent as desired. For this reason the use of the telephone should not be underestimated in communication between the intern and supervisor. Tape recordings can be used to exchange ideas and for the intern and agency sponsor to file reports with the university supervisor.

The major function of the university supervisor is to facilitate the integration of theory learned on the university campus into the practice of the internship. The most frequently

suggested means for doing this is the use of seminars. The seminars may be held on campus or some other location where a sufficient number of interns can be brought together to form a seminar group. In cases where interns are geographically dispersed, a conference telephone call may be a feasible means for the discussion of ideas. Intern seminars can focus on current problems of interns which in turn can be related to theory and principle. An additional step toward integrating theory and practice might be taken through having university faculty members who teach theory courses used as supervisors (Blackmore, 1968).

Communication between the intern, university supervisor and cooperating agency sponsor will be facilitated through the use of conferences. A university supervisor on visitation to the site of the internship may wish to arrange a three-way conference. One advantage of the three-way conference is that it eliminates the necessity of one party involved in the internship interpreting what was said by the second party involved to the third. This should be helpful in removing the cause of some suspicions on the part of either the intern or the cooperating agency sponsor, and it may be helpful in relieving tensions of the intern. The university supervisor can encourage openness among those involved by arranging three-way conferences and demonstrating his willingness to discuss any aspect of the internship with the intern and the cooperating agency sponsor simultaneously.

The conference becomes an important element in the evaluation of the intern. Information is fed back to the intern from the supervisor and sponsor which is particularly helpful in his self-evaluation. As the objectivity of the feedback to

the intern is increased, the value of this means can be increased to the benefit of the intern. An intern will have a pretty good idea of his general inadequacies and so will not be greatly helped by comments such as "you don't seem to be getting along very well" or "things seem to be going all right."

Evaluation. More formalized evaluation will require the collection of data and the maintenance of records. Evaluation within the internship should be a constant process, and the records kept should reflect this intent. The first record to be kept should be the listing of experiences to be included in the internship. This becomes a guideline and master plan for the internship to follow. The intern and his agency sponsor can use this plan as a point for discussion and sequencing and timing experiences. The university supervisor should serve as a "watchdog" of the internship experience plan. If activities are deleted or added to this original plan, the university supervisor should know why. Daily anecdotal records might be kept by both the intern and sponsor to log experiences during the internship. These anecdotal records might also be pointed toward noting special problems the intern has with theory related to practice. The university supervisor should probably keep a record of observations and conferences with the intern and sponsor. Records might also be kept by the supervisor relative to the internship situation itself.

Evaluation forms completed by field agency sponsors are helpful to the extent that they provide descriptive information about the performance of the intern. This limits the value of check sheets. Because of poor interrater reliability the check sheets for two interns should not be compared unless they are completed by the same sponsor.

In some cases interns have been partially evaluated on the basis of a project report. The project may take the form of a case study or a special problem related to the internship. It is probably worth note, though, that in at least one case interns rated this as being one of the least helpful aspects of the internship (Johns, 1966).

Implementation of Practicums

Objectives. For the student to gain experience in diagnostic techniques and the identification and evaluation of alternative actions, specific objectives should be stated. The list of competencies to be achieved by students prior to an internship should be helpful here. A micro-level practicum may be limited to the achievement of a single objective. Practicums dealing with more complex problems will undoubtedly have more objectives. In either case the practicum should offer a situation for the study of real problems under controlled conditions.

To a degree there is an inverse relationship between the realism in a problem situation and the amount of control that is exercised. When control of the problem situation is increased, it generally results in a decrease in the reality. A prospective administrator may negotiate with a group of his peers each playing the role of an activist student. One may play the role of a reactionary and another a militant. By this means control over the experience will be increased but at the expense of reality. It would be more realistic for the prospective administrator to negotiate with an actual group of student activitists in which there may be a reactionary and a militant.

In preparing the objectives for practicums, there will always be the "trade off" between realism and control to be

considered. The accomplishment of more restricted objectives may require higher levels of control. In the early stages of practice where correct repetitions are of utmost importance, a high level of control may be necessary. For example, a prospective teacher educator may practice questioning techniques in a very artificial situation; however, at a later stage when he combines the use of this skill with those of introducing a topic, reinforcing students and summating a presentation, it may be done under more realistic circumstances. As the internship approaches, behaviors to be accomplished should be more like those of practitioners, therefore, demanding more realistic problem situations. It should be stated, too, that the decision to decrease reality or decrease control should never be made. The decrease of reality or control are only as the result of having increased the other factor.

Source of problems. Since practicums should deal with realistic problems the most authentic source is actual professional practice. This is tempered, though, by the context and objective of the practicum. Individual instructors may adapt a problem to a course objective and design a practicum relative to it. This might be the case with specific content such as budgeting. Broader problems requiring the integration of diverse subject matter such as design and evaluation of a curriculum might be planned by faculty groups. Special seminars could be held for such purposes. A "think tank" or clearinghouse for some special type of problem may be organized on the campus. Such an operation might deal with a specified type of problem such as evaluation and invite local schools to bring their evaluation problems to this student group. They would then work on solutions

to be returned to those who submitted the problems. This would provide a source for realistic problems and give an opportunity for student consideration of alternatives and practice in the decision-making process.

Management. The design of practicum experiences presents a challenge to the creativity of the educator. There are many options open for the accomplishment of practicum objectives which can be used in a combination of ways within a framework such as the five step model suggested by Delaney (1969), including: 1) the initial session, 2) the development of a good human relationship, 3) goal identification and determination of supervisory procedures, 4) the use of supervisory techniques and procedures, and 5) termination and follow up.

This model would seem to best fit a practicum spanning a period of several weeks but would probably exist in a contracted form in shorter practicums. The initial period of the practicum could be given to explaining the overall purposes of practicum and the student's role. A conscious effort should be made to develop mutual confidence among the participants in the practicum. From this base the specific goals of the practicum and the means by which supervision will take place are described. At this point the actual problem situation is presented and dealt with by the student. In this stage instruction may be presented--either textual or verbal--and in some cases a student may be asked to imitate or model certain behaviors. During the termination and follow up step the student and supervisor evaluate the student's work, and the consequences of the decisions made by the student are considered.

Krathwohl (1965) described an atmosphere conducive for practicums in research which probably applies to other types of practicums as well. "Of more importance is the atmosphere where a contagious curiosity prevails; where new ideas are continually fermenting and being challenged . . . and where he [the student] has the freedom to display initiative and is encouraged to delve deeply." [p. 92]

The development of instructional techniques and media has greatly increased the possible variation in practicums. Some of the more familiar techniques include the "in basket" for prospective administrators, practice counseling sessions for counselors, and microteaching for teachers. Motion picture films are now available to give prospective supervisors preparation in the use of observational techniques. This might be done to develop skill in the use of a particular interaction analysis. Simulation can be used to place the learner in a hypothetical situation and may be guided by rules devised to make it a "game" situation. Game playing itself should probably be viewed as a distinct type of practicum. Commercially available games such as "Ghetto" may help the learner to identify with the situation while other games may cause the student to deal with the problems of planning his career. Role playing is often combined with some level of simulation and may be used to make a problem situation more realistic for the student. A case study may be undertaken by an individual or small group as part of a practicum. Television may be used to develop the setting for a practicum experience, and when combined with the use of a video tape recorder it can provide the learner with feedback information. Community involvement such as "living in" and home visitation can help in

adding realism to practicum experiences. The concept of micro-teaching (Allen and Ryan, 1969) in which component skills are developed should be applicable to the development of skills in administration, supervision, counseling, and teacher education.

One of the crucial concerns in managing practicums is providing feedback to the student. Some techniques and media such as interaction analysis and video tape recordings can be used to facilitate this process. Ratings by instructors and peers, student teacher conferences, and written critiques are other feedback devices. Feedback is particularly important in cases of problems not having absolute solutions. Here the student should have the opportunity to discuss the consequence of his decisions and to consider the alternatives to the decision made. It is important that the learner not only develop in the use of his diagnostic techniques and the evaluation of alternative actions but that he improve in evaluation of his own performance.

The use of a team approach among faculty members in the supervision of practicum experiences can serve two purposes. By using different faculty members in practicum supervision, the integration of theory into practice may be facilitated. In addition, the use of several faculty members should contribute to the assessment of the competency of the student to perform in the practicum.

Summary

Internships and practicums have been described on a continuum relative to the reality of actual professional practice. Internships have been considered as more realistic with practicums involving some form of simulation and contrivance to study complex real conditions. An internship comes near the completion of a

formal program of preparation and should involve a considerable block of time. During this time the intern is to relate theory and principle to practice and gain a sense of personal identification with that professional practice. A practicum can vary in the scope of the problem studied, complexity of that problem, and time devoted to its solution. Its purpose will be to give the learner practice in using efficient diagnostic techniques and practice in identifying and evaluating alternative actions. Purposes and objectives for individual practicum experiences should be drawn from actual problems of professional practice.

In deciding when to use internships and practicums the effectiveness and efficiency of these experiences should be considered. Because of the problems in actually measuring the output of practicums and internships, attention should be given to establishing a rational base for their management and developing experiences consistent with this rationale. The readiness of the student to participate must be attended to and competencies required for entering an internship should be identified. Practicum experiences may more nearly be fitted to meet the needs of the individual and can progress from problems with limited scope to more complex problems. The successful completion of problems in practicums as well as more formalized means can be used for measuring competencies.

For the intern to relate theory and principle to practice and gain a personal identification in the profession should be foremost in the conduct of internships. These central purposes will serve as a guide when preparing internship objectives, planning a program, making placements, and evaluating. The aid of representatives of those who will serve as field agency

sponsors should be enlisted at an early point to increase the relatedness of the program of studies and internship to actual practice.

The purposes of practicums are to help the student learn efficient use of diagnostic techniques and the identification and evaluation of alternative actions. Problems of actual professional practice should be identified and adapted for practicum use. With the utilization of modern instructional techniques and media a great variety of practicum experiences can be designed which will provide objective feedback to the learner.

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PLANNING AND EVAULATION OF ADVANCED STUDY PROGRAMS IN VOCATIONAL EDUCATION

An EPDA Project

Involving

Fellowship Programs in

Vocational Education

atto Legg

Duane Blake respondent

PAPER FOR DISCUSSION

BY

INSTITUTIONAL DIRECTORS OF FELLOWSHIP PROGRAMS

Bureau of Educational Personnel Development
Vocational Education Personnel Branch
U.S. Office of Education

in cooperation with

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Minnesota State Department of Education
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PLANNING AND EVALUATION OF ADVANCED STUDY PROGRAMS IN VOCATIONAL EDUCATION

Introduction

Preparation of individuals for greater leadership responsibilities through advanced study programs was never more important. The burden of guiding advanced study never a more demanding nor a more awesome undertaking! We can be quite sure that the future of public vocational education and supporting activities will not be determined solely by public needs. They will be determined by those who can transform public need into public policy. This statement has been prepared in all humility, recognizing the progress that has been made, suggesting modifications, and directed to men and women of understanding. The content of this paper is directed to a reasonable goal for vocational education which is only an estimate of the task. Then attention is focused on specific activities which may be considered, as improvements are sought.

Goal for Vocational Education

Educate and retrain 64,000,000 individuals per year in some phase of vocational education by 1980. (45,000,000 occupational orientation, 9,000,000 secondary and post-secondary skill training; 10,000,000 retrained annually from the adult labor force -- Enrollments in publically supported vocational education programs for 1971 are estimated to 9.3 million. How many administrators, supervisors, teacher educators, researchers, teachers and individuals for related areas should be available? Depending upon the teacher-student ratio applied, this task could involve 600,000 teachers per year, 60,000 administrators, supervisors, teacher educators, researchers, etc., and 1,000 to related organizations.

Goal for Advanced Study Programs

Essentially, the goal is to design continuing advanced study programs, prepare sufficient numbers of appropriately qualified high level vocational education leaders and place them in resource management positions. The presence of these leaders in the educational, social, and economic system will ultimately improve vocational education as their knowledge and effort is merged with that of other educational, labor, business and government leaders. With the probability of this goal now becoming a reality, human potential of students in vocational education or about to be involved in vocational education is not so likely to be squandered. Individuals desiring and receiving vocational training will be better prepared. Thus, their present and prospective job opportunities and capabilities will be more optimumally matched to the requirements of a dynamic labor market.

The benefits to accrue from graduate programs, presently supported by the Education Professions Development Act, will be essential additions to other preparatory programs. This statement will have application to the present and, hopefully, expand the perspective for a far more complex effort.

Past Effort and Present Situation

Institutions of higher education, professional staff members of State Departments of Education and their divisions of vocational education must be complimented on the progress made to date.

Growth of advanced study programs in vocational education paralleled the change and expansion of the authority of federal vocational education legislation. This development has produced both facilitating and inhibiting factors. The occupational areas to first receive support naturally became

strong. They developed a clientele and a power base. The expansion of authority and additional occupational programs has not been paralleled by resources.

This situation has created some internecine strife among programs and staff members of programs drawing federal support under the Vocational Education Acts, Manpower Acts and other Acts designed to furnish support for occupational education. Leaders of this nation are continuing to search for alternatives which will serve more people and fill more jobs.

These conditions are not new, but must be taken into account in all planning for vocational education, and, subsequently, in planning pre-service and advanced programs for individuals to fill resource management roles.

PROBLEM AREAS -- REQUIRING PLANNING

A brief description has been made of the leadership responsibility, goal for vocational education, goal for advanced study programs with reference to past growth and the present situation. Selected areas of activity are identified and briefly discussed that seem to require attention as advanced study programs are planned and evaluated as a part of the total effort to deliver improved vocational education.

Forward planning contains elements of process and content with attention continually focused on the end product. The following are believed to be areas of key importance:

(1) Recognition of the role of power in society and in the provision of resources for vocational education

(a) Politics of education;

(b) Role of the vocational education administrator (resource manager); role for other people;

(c) Planning and analysis; and

(d) Political economy and the budget process.

(2) Program structure and structural relationships

(a) Structure;

(b) Tasks;

(c) Structural realities; and

(d) Developing interrelationships.

(3) Minimumizing competition and building cooperation

(a) Is competition healthy?;

(b) Developing improved working relationships; and

(c) Merging capabilities to benefit people and the economy.

(4) Philosophy and management

(a) Philosophical approaches;

(b) Management training.

(5) Evaluation

Recognition of the Role of Power in Society and in the Provision of Resources for Vocational Education

Only those resources administratively provided make instructional staff, learning opportunities, facilities, and equipment educationally possible. Bierstedt states the idea of power very well:

> "Power supports the fundamental order of society and the social organization within it, wherever there is order. Power stands behind every association and sustains its structure. Without power there is no organization and without power, there is no order." (1)

Politics of Education

Leadership in training at the highest levels must know the politics of

education to be effective. The impetus and demands for educational change invariably originate externally. Neither political science, nor education has tried and tested methods for the study of educational politics and policy formulation.

An assumption prevails in the minds of many vocational educators that resources will continue to be available to support the activities of their interest. This is a tenuous assumption without a basis in fact.

Public educational organizations have relied upon resources made available yearly, usually by added increments of new funds based upon a continuing legislative authority. This procedure tends to harden lines of communication and trample deeper the ruts of status quo. The educational enterprise has consumed larger and larger amounts of public resources on a concept of continuous expansion, or incremental planning. The public permit to continue without more rapid adjustment is being revoked in many ways. These may be identified as: (1) resistance to increasing taxes, (2) demands for increased resources for other public services, i.e. highways, welfare, health, pollution, etc. and (3) the mismatch between educational preparation and job opportunities in the work force.

State and local educational agencies must break out of the ruts and manage to refocus resources on determined areas of greatest need. Such an activity has been termed "reconstructive planning" which considers first, utilization of existing resources in different and hopefully more appropriate ways. The assumption is that what is needed is not mainly planning <u>for</u> the future but planning <u>of</u> the future. (2)

All individuals in, or aspiring to leadership positions, should know the dynamics which bring about change. They must learn how, when and where to make inputs for improved education which will work to the advantage of people and the economy. A neglect of this arena of activity may, in effect, cheat those who would ultimately benefit.

Role of the Vocational Education Administrator (Resource Manager)

What was once a power role of vocational administrators and supervisors, threaded through the several layers of the educational and resource distribution system, has become an advisory, or team member role with the resource allocation authority placed more firmly with Chief State School Officers, College Presidents, etc.

These general education administrators must have workable short term and long term plans for vocational education. Plans must include goals, objectives, analysis of present status and past performance, alternatives, costs, and expected outcomes. Authorizing representatives of the public and chief school administrators will not expand and improve programs, without evidence of results and of probable future benefits, even though they are responsible for developing vocational education.

Our responsibility then is to work with, and learn to work with, the power structure, together with the power figures or groups which allocate and administer resources. We must employ those processes and procedures which are acceptable. Planning procedures and the analytical evidence to support decision making must be taught and communicated.

Elements of Planning

With increasing expectation of more effective delivery of educational services, systematic planning is demanded for a more accurate balance of programs in response to people, and in consideration of available resources. Allocating vocational funds among existing institutions and programs according to a set percentage year after year without thoroughly analyzing results is not an adequate planning procedure.

The local, State, and federal educational agencies have differing functions and planning responsibilities. The Federal goverment will reflect national priorities through incentives supporting designated activities. State governments will continue to be concerned with equalizing support to local educational agencies while working toward optimum size administrative units. They are also concerned with supporting higher education activities as universities and colleges contribute professionally trained manpower, research and services to the State's economy and growth. The local educational agencies must conduct programs, continually assess program results and respond to national, State and local needs in a more comprehensive manner to the benefit of students and the communities which they serve.

Many educational institutions do not see their role as comprehensive, nor do they consider their program in the light of overall local and State programs, nor do they make meaningful comparisons between alternative ways of carrying out programs. Their tendency is to select and justify programs on the basis of intuition or tradition; to plan and budget in terms of object and activity, and to evaluate in terms of effort expended.

The recent interest in "management by objective," or "program packaging" has encouraged States and other administrative sub-divisions to conduct broad planning activities to reduce educational and other problems. Planning which is comprehensive must involve all agencies and organizations which contribute to the provisions of occupational education. Such planning considers in a rational and systematic manner the capabilities and contributions of agencies, organizations and systems (both educational and non-educational) which are essential to effectively deliver educational services.

These plans of action cannot be limited to classical educational activity, but must encompass activities of other agencies which have responsibility and authority for certain educational program areas; for example, socio-economic conditions, health, housing conditions, working conditions and work opportunities. These are all factors which may adversely effect educational status, but which are not within the direct purview of official educational agencies. Thus, comprehensive educational planning must consider plans of action to be carried out by agencies which are not educational, but which are directed toward these factors. Improved management information and honest analysis are essential parts.

Role of Analysis

Analysis of program results has been inadequate to support plans and budgets. Analysis provides information, not decisions. Thoughtful analysis makes appropriate material available to decision-makers. If decision-makers will not use it, then analysis cannot be effective. The task then is to find ways to effectively influence decision-makers.

Attitudes, experience and skill are essential in identifying critical problems. Problem identification is of critical importance in the process of seeking solutions. The definition cannot be too narrow, in order that individuals working in analysis can develop social and economic sensitivity. Care must be taken of the way in which results are communicated. We must be careful that the data presented are meaningful and correct. Statements should be designed in language, in length, and communicated clearly describing realistic expectations to each user group.

Maintaining and expanding a program of public vocational education depends greatly upon the proper utilization of reliable sources of data and the sophisticated analysis of these data and consideration of the other vocational education activities which are available. In many public or private organizations the program goals, the program objectives and the budget are expressions of purpose and program; hence, their preciseness may be a reflection of past performance, including both successes and failure.

Many decisions must be made at many levels. They must be viewed as best choices among several alternative programs in the context of balancing needs against resources. Our task is being expanded to include that of more accurately predicting needed programs and necessary resources for several years in advance.

Considerable evidence shows that too narrow a focus on the immediate present and too much reliance on the past structure of administration and operation restricts the utilization of data and limits imaginative assumptions too early in the formulation of many plans. We do not know

what structural changes will occur in administration, or the amount of resources devoted by the several levels of government to meet the needs of the student population to be served.

Therefore, the focus should be on what needs to be done for people who fill occupational roles. We must focus on what is right and not worry so much about who is right.

Usually a considerable amount of confusion surrounds an area of activity before it receives definitive attention, such as the needs of inner-city disadvantaged youth and the area of health care. Individuals with considerable experience will need sensitivity in order to state problems in a manner which defines them sufficiently so as to suggest methods of action. Confusion may result when conditions change from normal to dynamic. Abnormal situations pressing on society bring new problems into sharp focus. Imagination, the ability to perceive problems, and knowledge of problem areas are required before sufficient force can be marshalled to begin to solve them.

Changing value systems bring into focus dormant problems which otherwise might be ignored. Expertise is necessary to frame goals and measurable objectives. Intellectual honesty must be maintained as program plans are developed and alternatives presented. Decisions involve selection of the best alternatives from many possible choices. Decisions are made on the basis of combined facts and values effectively communicated. Information containing historically accepted facts must be reexamined for continued application since facts are of ten derived from practices and beliefs which

may no longer be valid.

The validity of the combination of facts and values to gain acceptance and to be useful must bear on the appropriateness of potential action on current problems by the ultimate decision makers. Modern management demands that alternatives be prepared and accompanied by hypothetical results, both desirable and undesirable. Planning must feed directly into the budget process.

Political Economy and the Budget Process

There is some question as to whether the budget process has its deepest roots in economics or political science. Regardless of varying opinions, the ethos of program budgeting is economic rationality. It must show its worth in the political arena without becoming embroiled in political entanglements. Amidst the political realities, program preferences which are ultimately reflected in both the budget document and budget process occasionally may be unrelated to costs and benefits. In an educational setting, the budget process is both economic and political. The preparation and execution of the technical aspects of budgeting are mostly economic, whereas the gathering of public support is largely political. The budget process is highly complicated because so many interested and articulate parties are involved and the stakes are high. A thorough knowledge of budgeting and the budget process are essential. The content of plans as they include objectives, analysis, alternatives and budget recommendations, and the skills employed to communicate the content create an image of the reliability of the organization, or of the individuals taking action. Whether recognized or not, action is taken on the continuum of uncertainty and, most appropriately, from the position of certainty strengthened by reliable information.

It must be our desire as foresighted educators to strengthen the hand of the decision-maker. This places a horrendous burden on those in charge of preparing individuals through advanced programs. A thorough understanding of "structure" and "structural relationships" of public service agencies will serve to focus the importance on the planning and budgeting process.

Program Structure and Relationships

The conditions, the tasks and the realities encountered within a governmental structure which collects and distributes public resources must be clearly understood. Since vocational education is to provide training for people for jobs, the present administrative and instructional force, including graduate level students, must become familiar with structure and changes which are likely to occur.

Structure

Organizational structures are dynamic but functions usually remain. Common structural elements relate to important functional activities. The departments in a functional State structure include programs of health, welfare, education, highways, labor, budget, etc. The educational program administered by a Department of Public Instruction has the responsibility for the sub-programs of secondary, elementary, vocational, higher, and compensatory education along with the accompanying accounting and distribution functions.

The sub-program of higher education has that responsibility for teaching, research and extension. Departments of Vocational Education in colleges and universities are maintained by funds obtained from higher education and the sub-program of vocational education.

Governmental functions are resource utilizing rather than resource generating, and in turn, respond to the desires and needs of the people.

Business and industry within each State is the resource-generating mechanism of our society, replete with changes in output of products and services. It is a responsibility of vocational educators to keep abreast of changes occuring in both resource-generating and resource utilizing organizations. Vocational education must be a means of creating additional resources, and not a drain on the economy. Thus vocational educators must be prepared, and placed as key individuals in many levels of such organizations.

Tasks

The remarks about government and industry are intended to indicate the task before those in charge of advanced preparation of vocational leaders. First, is the continuing task of business, and industry which makes the match between people and jobs, no matter how incorrectly in a competitive atmosphere of change. A second continuing task, that of government, is to match the desires of people of the State with limited resources. Selecting out the educational responsibility, a third continuing task of educators is sensing the changing conditions of business, industry, and people in keeping educational programs and occupational opportunities in equilibrium. A fourth task of higher education is that of preparing people with professional degress, including teachers, researchers and school administrators. A fifth is that of the vocational education departments of universities in initial preparation, renewal and advanced preparation for now and for the future.

Structural Realities

Too often advanced level students are not aware of the political and structural constraints which exist. They are not prepared to participate favorably for resources for vocational education programs and students.

One of the major elements in the advanced preparation of vocational leaders is to obtain experiences in resource generating and allocation procedures with which they must be conversant in order to operate effectively in delivering programs at the various levels of responsibility in vocational education. Individuals knowledgeable about vocational education program capabilities can serve to feed in and feed back information beneficial to the resource generating and resource utilizing activities.

Minimizing Competition and Maximizing Cooperation

We are products of a competitive society. We have been conditioned to study to achieve the highest, to work to produce the most, to strive to be the best, and to manage so as to produce the most-profit. Controlled competion is healthy, but the concept does not have a place in every phase of human, social and economic endeavor.

Presently, competition exists for available, and potentially available public resources, for all kinds of demands made by individuals, special and common interest groups in our nation. Power of individuals and groups determine the distribution. Continuous effort is exerted for equitable distribution of public resources by priority needs of individuals and groups.

The same attitude and application of competition exists between education and other public services. Competition exists among levels of education. It exists within various occupational areas of vocational education. The same conditions prevail in providing advanced study programs. Much of this competition is wasteful of time and resources, thus escalating the costs and hampering accomplishments. Improved cooperative relationships among educational preparing manpower is desirable.

Developing Improved Working Relationships

Educational purposes, attitudes and experiences must be developed which will bring about improved interrelationships among general, vocational and private educators. Improved interrelationships are necessary to achieve optimum educational opportunities including occupational education for in-school and out-of-school youth and adults, as well as those with special educational handicaps. Thus, effective use of limited resources for all of education in response to the capabilities and needs of individuals, in accord with occupational opportunities, State and Federal legal requirements, State and national economic development and social improvement could be realized.

Improved relationships in education must then be extended to other functional groups affecting, or affected by education. Work can be planned and carried out. Improved relationships of functional groups can be planned and carried out. Where waste and overlapping functions are identified, structural changes can be made.

Merging Capabilities to Benefit People and the Economy

The parameter for such an endeavor must at least encompass the human resources of the State, the present and planned social and industrial development. At first glance, the type of involvements, the channels of communication, and the work necessary seem virtually impossible. But anything less would not be a useful compromise. Cooperative relationships and contributions should include:

1. The continuous assessment of the number and potential of human

resources by demographers, employment research services, educational statisticians and related contributors;

2. The existing occupational deployment and anticipated change by industrial development commissions, business and industrial representatives and governments; and
3. Representation from all levels of public and private education to review the amount and distribution of educational programs.

One the above is achieved and information made available, a determination could be made as to the kinds of educational and training responsibilities necessary, the amount and kind of resources needed and a clearer view of the division of labor and effort required.

Several inhibiting factors can readily be identified which are:

(1) established institutions with jealously guarded procedures and budgets;

(2) competition and distrust among agencies virtually providing the same types of services; and

(3) ignorance, lack of imagination, inability and unwillingness of people and agencies to communicate. Perhaps our philosophical approaches at one extreme, and the management training function at the other should be examined as they apply to vocational education.

Philosophical Approaches

An examination must be made of new philosophical approaches to the goals and objectives of the educational enterprise and the part vocational education plays. In view of many modern leaders, philosophy should be regarded as an intellectual activity consisting of descriptions and clarifications of ex-

pressions in a scientific, social and economic and every day discourse and not as a body of doctrines. Philosophical analysis isolated from other intellectual tools, and the understanding of practitioners, will not solve educational problems.

Nihilism is accepted by many as the current social doctorine. We observe, read and hear many who expound that present conditions are so evil that the present social order, including education, ought to be swept aside or destroyed to make room for something yet unconceived at this time.

Pragmatism has its followers who have tried to analyze certain educational procedures which have produced satisfactory results for narrowly specific groups and want to impose such findings and patterns universally. Witness sudden changes in direction with the rise of Sputnik!

Mass media, advertisements and other motivational techniques depend upon base, animal-like tendencies of individuals. These inclinations, best described as utilitarianism and materialism, have led many to believe that the greatest happiness is to be obtained through personal comfort and consumption.

An understanding must be gained about the growing current of unrest and uneasiness in the world for an effective outcome of advanced leadership preparation. People have been taught to be selfish, narrow and distrustful.

The above named philosophies and lethal-like, debasing consumption and obsolescence oriented motivational techniques must be altered in the directions of emphasizing human worth and dignity. We cannot fail to perceive a stale and sterile type of education emasculated by the exclusion of

essential spiritual values. What about developing minds to live, positively directed toward the value of work with emphasis on the quality of work not just the volume? Our coins and slogans bear the phrase "In God We Trust." Is this an environmental renewal task of those who teach others to teach, administer and lead? Does earth, water and sky need purging more than those activities impinging upon the spirit of man? What about educational efforts to study the causes of joy, health, value of work, not the cause of gloom, depression, sickness and laziness?

We have stated goals and many philosophies but the unrest of youth indicates that what is taught and what is practices are too different. Since the area of vocational education has connections both with philosophy and plumbing, a reexamination must be made concerning the basis of our beliefs used to connect the theory of one with the practice of the other.

Many has traditionally exercised three major forms of power in relationship to other people. These are legal power, economic power and mental power -- the authority of the mind -- by example. History is replete with examples of leaders whose political or legal power was anything but permanent. (3)

In unleashing the potent but still relatively dormant minds of people, real and urgent priority should be given to wrenching our minds away from agonizing over our frailities and inadequacies and directed toward developing better awareness and understanding our strengths. Sober reflection suggests that we may face seemingly insurmountable difficulties here unless we may face seemingly insurmountable difficulties here unless we are able to do something fundamentally effective through education as it is supported by legal and

economic authority; and, unless we are able to do something fundamentally effective in the education of teachers and the teachers of teachers.

Management Training

A linkage must be available to connect potential with action. We acknowledge that the computer, a mechanical device, has great potential when positively directed.

It will conserve time and energy while yielding a desired product. However, when mis-programmed, vast amounts of time can be wasted in iterative operations.

Management training, thoughtfully employed, holds a similar potential for linking together individuals and organizations. Thus, resources may be more accurately and cooperatively targeted to produce greater benefits.

During the first levels of professional education, attention usually is directed to content specialization, often with increasing micro-concentration during the second and third levels. We have all witnessed activation of the assumption that a good teacher will, in turn, be a good supervisor, and ultimately, a supurb director, vis a vis the Peter Principle of "Percussive Sublimation." (4)

We are now observing the emphasis which business, industry and government are giving to management training of specialized individuals including: engineers, economists, educators, etc. The desired outcomes of such training are: to develop the abilities of individuals to cooperate, to become team members; to pull together for useful purposes rather than working at cross purposes, but at the same time maintaining their leadership abilities and techniques. Vocational educators have become expert in working with youth groups in fostering leadership activities. But how well prepared are our Ph.D's to work as resource managers?

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While there is an art in leadership in vocational and technical education, there is also a science side. There are identifiable techniques which can be utilized to secure a desired change by a leader who works within a present frame of reference which may or, may not be completely familiar to all people. One of these is, for example, to communicate with those both in, and out of, vocational education.

In the past, a leader developed over a period of time; he came through the ranks of teacher, assistance supervisor, supervisor, and eventually into a supervisory leadership position. His "apprenticeship" was spent as an assistant supervisor or director and he spent years copying what the "great man" above was doing. This slow process is too expensive in our modern and expanding age!

Treating vocational and technical education as a response to a social demand, allows the establishment of a mission and goals which can, in turn be, used as evaluation criteria to tell whether or not the vocational program is actually serving the needs of our society. This approach allows one to do rationally what has been done in the past by intuition. While the intuition approach will not be eliminated, it will be utilized as a adjunct to the recognized leadership techniques taught in advance study.

Meeting the needs of our society for trained workers requires a knowledge of what are the needs of our society for these workers. The leaders must know current and projected trends and know how to take steps to achieve satisfaction of the needs of society through vocational and technical education. The advanced study program must be realistic, it must "tell it like itis" concerning political, social, governmental (bureaucracy), legal, formal and informal constraints that are placed upon the leader of vocational and

technical education, and what to do about them. No longer can the leader be a "masters of the mysteries." Instead, he will be a competent, technically equipped, well trained expert.

Advanced study is a priviledge offered those who want, need and can profit from it. Advanced study is the formal but not the only way in which leadership can be developed in vocational and technical education. It is, however, the most effective of the devices we now have to achieve this goal.

Accepting the concept of the "limited" objective means that the advanced training program will train, particularly for certain activities, and will not attempt to do all things for all people. This permits a measurable response on the part of the students which can be compared with the program of objectives. A well planned and well evaluated program will be of great importance in the development of vocational and technical education.

Each step must be subjected to the most penetrating scrutiny to determine whether it is contributing directly to individual or organizational accomplishment. If the value of an activity appears to be lessening, action should be taken to eliminate it altogether; or, to combine that activity with others; or to rearrange activities.

Evaluation must be concerned with each step of process, and in this instance, through the accomplishments of graduates of advanced study programs. Central performance monitoring should be maintained regarding administration, professors, curriculums, and students in process and in

the field where graduates are placed for employment to ascertain that work is up to standard.

Program evaluation should be maintained to answer the fundamental question: "Is the program adequately achieving its objectives?"

The topic we are confronting in regard to advanced study programs is similar to that which Mager and Pipe are confronted with as consultants to industry. When production or sales are sagging the statement is, "We have a training Problem!" Usually training is not the problem but only a part of the problem. The same may be true in (advanced study programs) in Vocational Education. (5)

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*Prepared cooperatively with Dr. Bruce I. Blackstone, Teacher Education Systems Analysis and Design, DVTE.

ORGANIZATION AND MANAGEMENT OF CURRICULUM FOR DOCTORAL (ADVANCED STUDY) PROGRAMS IN VOCATIONAL EDUCATION

An EPDA Project

Involving

Fellowship Programs in

Vocational Education

Harold Nelson

Carl Dale respondent.

NC State.

PAPER FOR DISCUSSION

BY

INSTITUTIONAL DIRECTORS OF FELLOWSHIP PROGRAMS

AND

STATE DIRECTORS OF VOCATIONAL EDUCATION

Bureau of Educational Personnel Development
Vocational Education Personnel Branch
U. S. Office of Education

in cooperation with

Vocational Education Division
Minnesota State Department of Education
St Paul, Minnesota

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ORGANIZATION AND MANAGEMENT OF CURRICULUM FOR DOCTORAL (ADVANCED STUDY) PROGRAMS IN VOCATIONAL EDUCATION

by

Howard F. Nelson
Professor and Director
Division of Vocational and Technical Education
University of Minnesota

Formulation of a curriculum plan outlining the essential elements of an advanced level program of study for the development of vocational leaders for the 70's presents a formidable task at best. Its organization and management aspects are difficult enough to arrange. But the identification of the fundamental areas requiring intensive study and the specification of the experiential encounters which we must assume will bring about the growth and development of graduate student strengths and competencies, pin-points the perplexing difficulty.

In years past, the "curriculum" requirements for vocational education leadership preparation consisted essentially of trade competence, teaching experience in a trade, a first degree (sometimes two), several years of experience administering some vocationally related enterprise and very little else. Not only would that suffice for an administrative assignment to run a program or school, it would also nearly meet the certificate requirements for teacher trainers of those administrators. These days are gone forever.

Vocational education leadership has been trudging along through these adolescent years up until the middle sixties. Suddenly, but not unexpectedly, it reached the age but not necessarily the maturity for a new leadership role. It was for this preparatory void that the Educations Professional Development program was designed as has been so well delineated under the first topic.

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PROGRAM NEED

Recent and pending legislation emphasizes the extension of vocational education opportunities to all persons throughout all the stages of their career development. But only cursory attention has been given thus far to developing the leadership capacity necessary to implement the legislative mandates.

In my own State, thirty Area Vocational Schools have been established or approved for future operation since the enabling legislation was passed in 1945. A recent study[1] indicates that (a) due to the projected increases in post-high school enrollments by 1980, fifteen new Area Vocational Schools, in addition to those now approved, will be needed, and (b) the dearth of programs giving special attention to the rural and inner-city disadvantaged at the secondary level calls for one hundred vocational centers and several residential centers to be created throughout the State.

This prospective growth is in addition to anticipated expansion of occupational programs in the junior college system, and does not account for the involvement of vocational educators in the development and conduct of programs in the elementary and junior high schools designed to help orient all youth to the world of work as an integral part of their general education. Further, the potential impact on this State of the pending federal comprehensive manpower legislation, in terms of additional demand for highly-trained vocational personnel, has also not been estimated.

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1. Vocational Division, Minnesota State Department of Education, Vocational Technical Education 1968. St. Paul, Minn., The Department, 1968.

Nationally, the most recent evaluation of the vocational education programs[2] clearly documents the need for expanding vocational education opportunities and points out the critical shortage of leadership personnel for administrative, instructional, curriculum development and research, evaluation activities.

In vocational education, there is no current surplus of doctoral-level personnel, and the sources of supply are extremely limited. The U.S. Office of Education recently requested institutions of higher education throughout the country to submit proposals for a doctoral-level fellowship program to serve vocational education. After reviewing the applications, the Office found that no more than eleven institutions presently had sufficiently comprehensive programs to provide the desired training.

These were the contributing circumstances which precipitated action at the University of Minnesota and impelled the staff of vocational programs into applying for an E.P.D. leadership program in an attempt to alleviate some of these critical shortages.

As one of the eleven institutions selected, it became apparent almost at once to the staff that one or more new degree patterns needed to be developed and approved if we were to prepare people for the professional roles which they must fill as future vocational leaders.

Almost simultaneous with these discussions, a new Division of Vocational and Technical Education (comprised of Agricultural Education, Home Economics Education, Distributive Education, Trade and Industrial Education, the Research Coordinating Unit for Vocational Education, Vocational Counselor Education and the reimbursable elements of Business Education) was officially constituted.

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2. Notes and Working Papers Concerning the Administration of Programs Authorized Under Vocational Education Act of 1963, Public Law 88-210, As Amended, 90th Congress, 2d Session, U.S. Government Printing Office, Washington, D.C., 1968.

While major responsibility for developing the program proposal was centered within the R.C.U., representatives of all vocational areas participated in its preparation. As a result of this cooperative endeavor, provisions were made to award the advanced degrees by the Division through the Graduate School rather than by some other unit of the University.

DEGREES DEVELOPED

The two doctoral programs proposed were designed to fulfill the common responsibility of the Division's constituent Departments -- the preparation of personnel for the highest level leadership roles in vocational education. These roles are typically in research-evaluation, curriculum development, and in administration, teacher training and supervision (the latter two being instructional specialists).

Doctor of Philosophy Degree

The proposed program for the Doctor of Philosophy degree in Vocational Education has, as its major purpose, the preparation of selected persons for careers as producers of knowledge. The program is based on the continuing need in vocational education for specialists with competencies in research, evaluation, and curriculum development activities. All of these activities require skills in the processes and tools of knowledge acquisition and development, as well as foundations of substantive knowledge relevant to special areas of inquiry.

Individuals who are qualified to enter the Ph.D. program in Vocational Education can come from any and every vocational specialty; they engage in very similar programs of study, and they find an increasing number of employment opportunities in positions which require the solution of educational problems common to all the special vocational fields. And yet, the prepa-

mation and the professional commitment of graduates from this program will differ considerably from those of other educational scholars. Their substantive area of conceptual expertise and their particular research and development interests within vocational education distinguish them from their counterparts in other fields of education. Experience to date in the preparation of research-oriented specialists for vocational education has demonstrated the desirability of providing a Divisionally-operated degree for that purpose.

In light of the above, students who successfully complete the Ph.D. with a major in Vocational Education should possess the following kinds of competencies:

(1) Knowledge of the purposes, practices, issues and problems of vocational education, and an

(2) Understanding of the social, economic and educational frame in which they exist.

(3) Familiarity with a body of knowledge which is relevant to a problem area of special interest in vocational education, and

(4) Facility in applying appropriate research-related tools and techniques to the solution of vocational education problems in the area of special interest.

Doctor of Education Degree

The research orientation of the Doctor of Philosophy degree, as noted above and as currently accepted by the College of Education, does not fit the kind of preparation which certain other leadership positions in vocational education require. A Doctor of Education degree in Vocational Education was therefore also proposed. Many practitioners are involved in work which requires application of knowledge rather than its production,

e.g., vocational administrators and instructional specialists. Similar to practitioners in other professions, they must bring knowledge to bear upon practical problems. New factual knowledge collected by them is used in decision-making for administrative or instructional action rather than for generalizing to a cumulative body of knowledge. Therefore, a doctoral program for the practitioner needs to develop these competencies:

(1) Mastery of the information needed by the particular area of practice (e.g., administration),

(2) Skills in the techniques of applying that knowledge to the typical tasks of practice, and

(3) Problem-solving abilities as they relate to the situations similar to those that may be encountered in practice.

Persons who wish to become vocational administrators should have a background in vocational education; in fact, only those who have such a background find administrative employment in the field. Unlike other educational administrators, a significant portion of their doctoral program needs to be in vocational education and manpower studies. But it makes no difference from which special vocational field the students come; their programs would be very similar and their employment potential would be unaffected.

The background qualifications, program of studies and employment potential for instructional specialists in vocational education also differ markedly from instructional specialists in other fields. And, while the substantive areas of competence and, to a decreasing extent, employment opportunities also vary somewhat among teacher trainers and supervisors in the various special vocational fields, their programs of study and general field of professional commitments are sufficiently common to make it logical to award these instructional specialists the same degree.

Thus, both a Ph.D. degree and an Ed.D. degree were proposed in order to distinguish between the two very different kinds of leadership roles in vocational education -- differentiae which will be reflected clearly in program admission requirements and in the programs themselves. The major in Vocational Education was proposed because it would serve all of the common responsibilities of all the Departments of the Division at this level of training, and because there are marked differences between vocational education and other educational fields in terms of the backgrounds and professional goals of students, the content of programs, and the employment opportunities and job responsibilities of graduates.

Eligibility and Admission of Students

Advanced degree programs having a major in vocational education, should be broad and comprehensive including major components drawn from disciplines outside education to buttress the major. As appropriate to programs of study, Industrial Relations, Sociology, Economics, Vocational Psychology or others should be utilized as collateral or supporting areas of concentration as illustrated on the course distribution chart on page 14.

It is suggested that, in both degrees and all options, at least twenty-one credits be earned in vocational education. Having had varying amounts of previous experience in this field, one would expect all E.P.D. fellows to perform well in the vocational education block of studies.

However, courses in vocational education represent only one-fifth of the total doctoral requirement with four-fifths drawn from the other graduate disciplines.

Being realistic about these matters and also desirous of having fellows enjoy success in the competition generated in any graduate class by doctoral students representing all disciplines, the main factor related to the selection

process involves full and complete admission to the Graduate School to pursue a doctoral degree. Candidates in the leadership development program must possess the capabilities and competencies comparable to candidates from any discipline. There should be no alternatives considered at this stage. Until admission has been officially obtained, no prospective fellow should be encouraged pending admission.

In a more specific vein, and hopefully providing guidance for those institutions anticipating starting an E.P.D. program in the future, a more detailed review of eligibility criteria employed at this University, both for admission to the Graduate School and selection for the program are provided as follows:

(a) Possess at least a Bachelor's degree or its equivalent from a recognized college or university, and

(b) Indicate willingness to pursue full-time study in the program during the academic year plus two summer sessions until the doctorate is earned (assuming financial support continues to be made available), and

(c) Indicate intent to devote his or her professional career to the advancement of vocational education, and

(d) Possess the particular educational background, teaching and other experience required by his or her state of employment (upon completion of the fellowship program) in the vocational education specialty for which he or she elects to be prepared (administration, teacher education, research-evaluation). As a minimum every applicant must have either an undergraduate or graduate degree in or some instructional experience in a vocational, practical arts, or related field, and

(e) Have earned a minimum grade point average of 3.4 in prior graduate level courses and a 3 0 grade point average over the junior and senior undergraduate years, including a 3.0 average in the undergraduate major (A=4.0, B=3.0), and

(f) Score at or above the fortieth percentile on the graduate level Miller Analogy Test, using University of Minnesota, College of Education entering graduate student norms.*

Obviously, these criteria will permit admission of some students who will not complete the program successfully and exclude others who could succeed satisfactorily although considerable experience has shown the thresholds specified to be reasonably valid.

The initial process by which State Directors nominate potential candidates seems sound and worthy of continuation. Directors are in a unique position to know about leadership needs in administration, supervision, teacher education, research-evaluation and curriculum development. In the process of nominating students, they too must give careful attention to scholastic requirements of the program. Hopefully, the nominees identified by this process will represent all fields of vocational endeavor so that the ultimate leadership impact will also be broad.

CURRICULUM FOR ADVANCED DEGREES
GOALS OF GRADUATE LEVEL (ADVANCED STUDY) PROGRAMS

As currently perceived, there are to major purposes and one incidental reason for graduate level education in vocational education. The first major reason relates to doctoral degree work for E.P.D. fellows, the second one to

*Criteria (e) and (f) are required for admission to the Graduate School. Under certain unusual circumstances, individual applicants with grade point average or test score below stated requirements may be considered favorably for admission.

advanced study in the field and the incidental reason concerned with remediation of baccalaureate deficiencies. This last purpose would not be considered ordinarily as suitable for advanced degree purposes.

The first major goal of doctoral level study would be to upgrade personnel to certain advanced and/or specialized roles beyond the professional level of classroom teacher. Such roles are created by the demands of the field as the program expands to encompass new groups, new responsibilities emerging under legislation and the reallocation of duties brought about by normal development.

Degree programs at the graduate level are designed primarily by the institution to prepare individuals for those roles by specifying systematic curriculum pursuits to develop the necessary competencies. Degree programs may, under these conditions, specify prerequisites and often do have specific course requirements which are imposed by the institution in the light of perceived role requirements. Thus, degree programs serve the pre-service, upgrading function of graduate-level work and consist of systematic sets of experiences which provide much in common to all who aspire to attain the same role. Students elect to prepare for the role and then meet the requirements of the role, as interpreted by that institution.

The second major goal of graduate-level study, although not necessarily as element in doctoral level study, would be to update employed educational personnel through in-service programs to maintain or enhance effectiveness in their present roles. Such programs of advanced study are designed to meet the individual needs of practitioners as perceived by them or perhaps by their supervisors, rather than to culminate in an advanced degree. Institutions need to be sensitive to the needs of the practitioner by providing the mechanics by which they can learn about them, help the practitioner plan for appropriate learning experiences, and then provide those experiences as

efficiently as possible whenever they fall within the instition's capability and capacity.

Under these conditions, special graduate-level experiences, therefore, may be designed and provided to meet the expressed needs of individuals and groups at a given time without the necessity of meeting all the qualitative standards for graduate credit toward advanced degrees.

Criteria for Inclusion of Courses

In determining which educational experiences are worthy of receiving graduate credit toward an advanced degree, the best subjective judgment of professional staff must be utilized. These judgments must be made by each institution of higher education and by each vocational field represented in the institution.

This judgment may include granting credit for selected educational experiences provided under the University's supervision and control and may also award credit for certain experiences afforded by other institutions or agencies.

Graduate credit for courses included in the curriculum for advanced study should be awarded only for educational experiences designed specifically to prepare individuals for and/or maintain their effectiveness in various educational roles above that of a classroom teacher.

Such experiences are at an "advanced level" in that they build upon undergraduate programs which were, (a) designed to prepare beginning teachers, or, (b) employed to contribute directly to advanced specialized professional roles. Courses suitable for inclusion either presume and build upon competencies developed in the undergraduate programs or they introduce new competency areas not ordinarily included in the undergraduate teacher education program.

Graduate credit for courses included should be awarded only for pre-planned and/or pre-selected and organized learning experiences provided by institutions under careful supervision or control for the primary purpose of developing pre-designated, advanced level competencies. This position rules out graduate credit for professional educators' normal job responsibilities such as faculty discussions, professional organization activities which ordinarily are relatively unplanned, unstructured and uncontrolled circumstances.

Graduate credit should be awarded for advanced level, carefully structured and controlled experiences only when they are also of sufficiently high quality to warrant that treatment. Quality of experience as used here becomes a function of the instructor, the facilities and the students.

To retain reasonable control over quality, while at the same time taking advantage of other institutions' strengths, transfer credit should be accepted toward degree programs on a selective basis. Some graduate credit awarded by other accredited institutions of higher education should be accepted on a course by course basis. In addition, a limited number of experiences provided by other kinds of institutions or agencies should be awarded graduate credit provided the student has officially gained admission to the degree program and has also obtained prior approval for the experience.

Competencies To Be Sought

With these basic criteria for the inclusion of graduate level courses in the curriculum, the broad basic competencies to be developed through either the Ph.D. or Ed.D. degree for E.P.D. fellows are restated here although they appeared earlier.

Ph.D. degree, major Vocational Education

(1) Knowledge of the purposes, practices, issues and problems of vocational education, and an

(2) Understanding of the social, economic and educational frame in which they exist.

(3) Familiarity with a body of knowledge which is relevant to a problem area of special interest in vocational education, and

(4) Facility in applying appropriate research-related tools and techniques to the solution of vocational education problems in the area of special interest.

Ed.D. degree, major Vocational Education

(1) Mastery of the information needed by the particular area of practice (e.g. administration),

(2) Skills in the techniques of applying that knowledge to the typical tasks of practice, and

(3) Problem solving abilities as they relate to the situations similar to those that may be encountered in practice.

For purposes of this discussion, these broad statements describing competencies have encompassed all minor roles and responsibilities or specific topics such as curriculum and instruction, evaluation, fiscal responsibility, legislative influence and authority, program and facilities planning, public relations and liaison, research and development, staff development and improvement and student affairs.[3] All of these have been subsumed under the above seven competencies where each, in turn, will receive its appropriate attention.

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3. A Seminar On Graduate Education Programs, Leadership Training Series No. 30, p. 10-11, the Center for Vocational and Technical Education.

Proposed Courses in Curriculum

As an overview of major blocks of courses which are viewed as appropriate areas of study either in the administration or instructional major in the Ed.D. program or the curriculum or research-evaluation concentration for the Ph.D. degree program, the following chart provides illustrative distributions of course credits for each.

ILLUSTRATIVE DISTRIBUTIONS OF COURSE CREDITS FOR LEADERSHIP ROLES IN VOCATIONAL EDUCATION

	Ed.D.*		Ph.D.**	
.Blocks of Courses	Adm.	Inst.	Curric.	Res. - Eval.
Vocational Education	24+	24+	21+	21+
Administrative Theory & Practice	30+	--	--	--
Learning and Instruction	9++	21+	12++	9++
Psychological-Personnel Services	6++	15+	9++	6++
Educational Theory & Curric. Dev.	12++	18++	24+	12++
Research-Related Tools & Techn.	12++	15++	24+	32+
(Manpower Or Technical)	15+*	15+*	15++	15++
(Discretionary)	--	--	0	10
TOTAL	108	108	105	105
Also required: Internship or practicum	0	0	0	0
Also required: Field study or thesis	0	0	0	0

*A minimum of 21 credits are required outside the field of Education.
**A minimum of 15 credits are required outside the field of Education.
+In the major field.
++In the supporting field.
+*Collateral.

VOCATIONAL TUTORIAL (Voc. Ed. Block)

One of the major, foundational areas of study and principal program emphases involves the vocational education block which carries a heavy credit requirement for both doctor of education and doctor of philosophy students as shown on the previous chart. Because of its importance to the E.P.D. participants, considerable attention needs to be devoted to a thorough discussion of its innovative approach.

In the Minnesota program for the fellows studying under this plan, course work in vocational education cannot be taken in fragmented pieces such as principles and practices or foundations, cooperative education and coordination, secondary, post-secondary or adult vocational education, trends, problems and issues, occupational analyses or similar topical areas of study.

Instead, fellows in this program register for three credits each for six quarters of Vocational Education Tutorial to study in depth the all-inclusive topic of vocational education. This tutorial plan grew out of a recommendation of a former University President, O. Meredith Wilson, who upon returning from a stay in England, proposed the tutorial as a worthy organizational approach to a comprehensive in-depth study of any given topic of concern.

To set the stage for continued explanation of the Minnesota tutorial in vocational education, a short extract of former President Wilson's speech will suffice. This seems appropriate because of its uniqueness to the topic under discussion.

> "The adaptation of the tutorial which, I would undertake, if it is possible, may be outlined as follows. First, I would ask a given department to have its staff meet together long enough to make clear the objectives of the major specialization and to outline a series of fundamental problems or propositions, the mastery of which would be considered a necessary part of any man's program who intended to get a degree from that department. I would assume that the department might well define eight to ten problems that ought to be clearly understood or mastered by a

student. Once these benchmarks in his progress were identified by the faculty, I would ask the faculty to put together a list of books so that a fundamental bibliography would be arranged around each of the problems. Then, as the students identified their majors, they would get the eight to ten benchmark propositions with the appended bibliography. Each student would be told that he should prepare an essay explicating the problems in sequence...The objective would be to move through each of these eight or ten propositions during the two to three years left for the young man seeking his degree. At the conclusion of the Education experience, the young man would have eight to ten chapters that would be his best possible expression of the major propositions in his field. There would be some element of independent study in such a program, but it would not be unstructured independent study. It would carry him through the heart of his own field. Its expectation would not be novelty, but rather, mastery of the seminal elements of his special interest. By the end of the tenth essay, he would have been forced to master the technique of essay writing as well as could be done in a two-year period, and he would have pride in the cumulative consequences of his efforts. Indeed, he would have a small book of his own to which he could refer with greater profit than to any text prepared by some other person.

> In order to make room for such an intensive personal review of the literature by a student it would be necessary for the faculty to forego some of the presently scheduled lectures and faculty-student confrontation. The modification in the number of courses in the curriculum would not do damage to the program. The reliance upon the student as the chief source of energy in instruction would be putting the burden in the appropriate place. Though in the initial years (I judge from my own conversation with the University of Minnesota faculty) it would be difficult to persuade the faculty that this enterprise could be undertaken without a marked increase in the number of faculty in relation to students, I believe that in the long run it could be managed with no greater number of professors than are now required. I have high hopes that the faculty will accept an interest in this kind of program. I am now somewhat less sure that it can be started without some substantial relief to the experimenting department in the first year or two. I am equally sure that if such a program is established it will, at least for the good students, seem infinitely more attractive than attendance of lectures and will lead the students to a substantially greater maturity and a better mastery of subject matter."

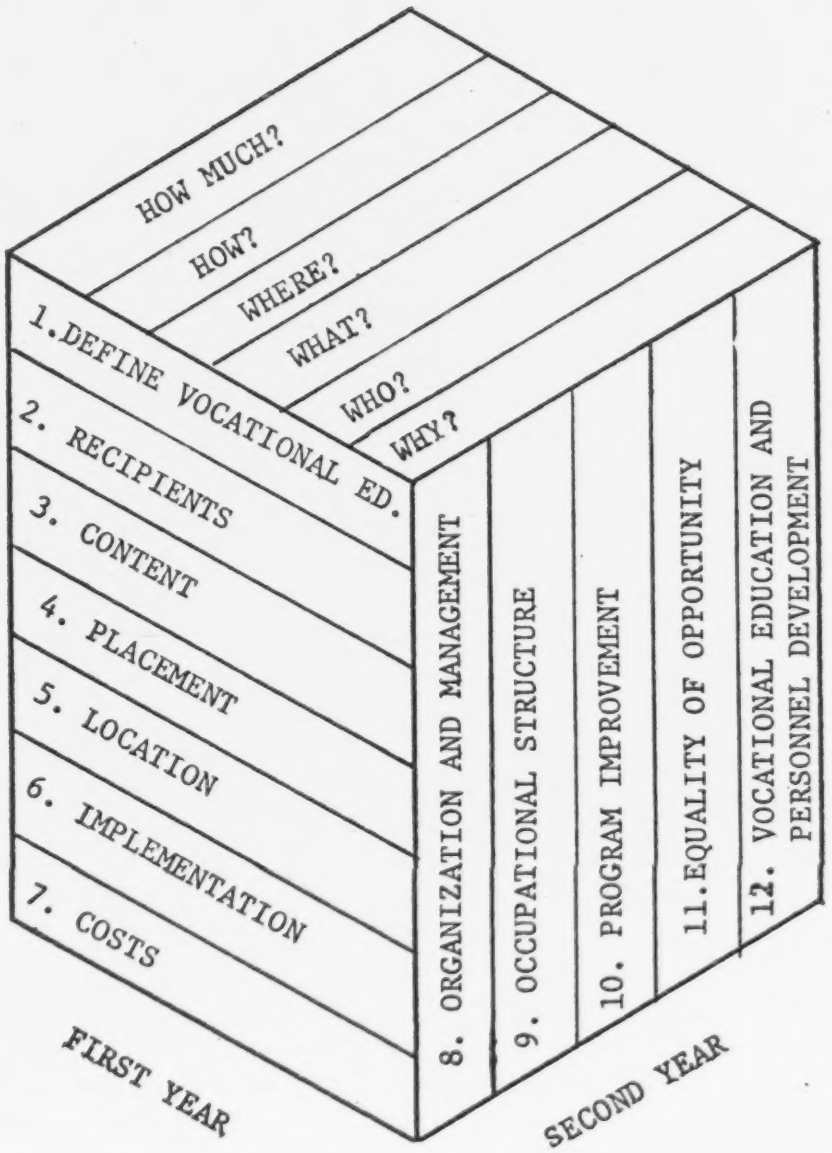
In establishing the vocational education tutorial as the single, major, in-depth study of the topic, seven objectives were adopted as goals for this organizational structure for learning.

1. Select a series of fundamental problems or propositions, the investigation of which, will necessitate an intensive scrutiny of the relevant vocational education literature.
2. Require each participant to develop systematically a comprehensive bibliography in support of his position relative to each problem or proposition.
3. Develop a foundation in vocational education from which to apply, integrate and synthesize concepts and principles which are critical to the field and each participant's goals.
4. Provide regularly scheduled situations in which to interact with colleagues and tutorial faculty.
5. Require each student to develop a professional position paper or monograph covering each problem or proposition. The paper should reflect his interests, demonstrate its relationship to his career goals and make a significant contribution to the literature of the field.
6. Develop learning expedients for participants involving properly integrated and focused experiences which will make them sensitive to and capable of dealing with special education problems identified among the disadvantaged and handicapped.
7. Provide for on-site visits to and consultation about selected existing vocational education programs.

By way of delineating further the tutorial content expected to be covered over the two-year program, a graphical representation of the major propositions or topics has been shown in the chart which follows:

must have specialization, analysis, interpretation, etc. in field & area. related.

VOCATIONAL
EDUCATION
TUTORIAL



There is knowledge of
1) process
2) sources of information
3) questions & values.

Before becoming involved in a detailed discussion of this learning structure, it should become obvious immediately that no topic can be dealt with in isolation from any or all other topics. Thus, as propositions are dealt with by participants, they must be concerned with all phases, modifying circumstances, impinging situations or other special characteristics which influence the topic being treated.

Likewise, no topic can be narrowly treated by specific field such as trade and industrial education because the tutorial staff includes representatives of all vocational areas represented in the Division of Vocational and Technical Education. As a matter of fact, the vocational tutorial has been set up as a Division offering.

Nor can any topic be developed in isolation from the State Department, Division of Vocational and Technical Education, because the present Assistant Commissioner for Vocational and Technical Education, Mr. Robert VanTries, holds the rank of professor in the Division as a member of the tutorial staff.

And furthermore, no topic can be developed in isolation from the national scene because one recent member of the President's National Advisory Council, Mr. Charles Nichols, also holds the rank of professor on the tutorial staff. Nichols, Minnesota's leading black educator, serves a dual role in representing the Council as a consultant now and also minority groups who deserve our utmost effort and attention. Thus, this faculty has local, state and national representation as well as vocational area membership.

The procedure by which these professional staff are named to the tutorial faculty utilizes the academic mechanism of "adjunct" professor appointment. Professors so added enjoy many fringe benefits of the University normally available to its regular staff. They may serve on examining committees, use certain facilities and arrangements, purchase reduced rate athletic tickets and similar accouterments. Salary of an adjunct professor, however, comes only in satisfaction and status.

The regular professorial staff associated with the Tutorial includes eleven graduate faculty members approved for doctoral advising by the Graduate School. For purposes of calculating faculty instructional load, the Tutorial has been made equivalent to one regular graduate class per quarter per faculty member. This assignment has necessitated a readjustment in teaching load at the Department level to compensate for the additional commitment to the leadership development project.

VOCATIONAL TOPICS OR PROPOSITIONS

The tutorial staff in planning this course recognized that the E.P.D. fellows represented all areas of the country with a resulting variety of experiences and perhaps divergent philosophies of vocational education. Obviously, they would have been influenced by different educational institutions and by work situations; thus, it would appear to need a structured set of circumstances in which to clarify some of the fundamental issues and problems.

The tutorial afforded a framework through which this kind of clarification could occur. In its management, fellows run the tutorial sessions with elected committees. They use the literature, employ speakers and consultants, conduct debates and discussions or any other learning expedient which will add to the process of clarification.

The intersecting structure of the topical arrangement was deliberate to insure that no one topic could be treated in isolation from any other proposition or issue. At the same time, any fellow would not be expected to develop position papers precisely like another, but at least would examine his own in the light of an array of facts which could be mustered in support of all topics.

The major topics which will be highlighted in the following paragraphs are not assumed to be exhaustive, inflexible or final. The lead questions or problems posed under each are purely illustrative but in no way exhaustive of the fundamental issues needing investigation.

1. Define Vocational Education

    a. What should be one's philosophy about vocational education in 1971 as contrasted with earlier definitions?

b. What are the sociological foundations and how do they influence definitions?

c. What are the economic advantages of vocational education?

d. What should be the relationship between it and general education?

2. Recipients of Vocational Education

a. What are the characteristics of present students enrolled in programs?

b. Who are the potential groups not now being served?

c. How can they be identified and brought back into the mainstream of education?

d. What is the scope of the total population to be served?

3. Content of Vocational Education

a. What are the accepted methods for deriving instructional content?

b. What are the commonalities or distinctive characteristics?

c. What methodology will best bring about the desired behavioral outcomes?

d. By what means can the content be validated?

4. Placement of Vocational Education in the Curriculum

a. Where should vocational education be provided in the curriculum - in the junior high school, senior high school, post-secondary or junior college?

b. What are the factors which influence placement in the total educational scheme?

c. How does the concept of career development enter into these deliberations and decisions?

d. Does the maturation process suggest a "readiness" for vocational instruction? If so, how should this factor be taken into account?

5. Location of Vocational Education

a. Who is responsible for vocational education -- the community, State, Federal government, business, industry or some other agency?

b. Should individuals share in the responsibility for their own vocational training?

c. Where is the education best carried on -- in existing installations, another type of institution, comprehensive schools, industrial plants or junior colleges?

d. Are there any best locations?

6. Implementation of Vocational Education

a. What are the change agents and the most effective methods of utilizing them?

b. What role should be played by the local, State and national governing bodies for expanding vocational education?

c. Should work needs, which are assumed to lead to personal job satisfaction, be identified and incorporated into the plans?

d. Should satisfactoriness of potential employees become a major concern of educators?

7. Cost of Vocational Education

a. How can cost-benefit, cost-effectiveness or cost-utility measures be utilized in evaluation and support of programs?

b. Where should financial support be generated -- are there better sources of funding not yet envisioned?

c. Are the costs of vocational education out-of-line or in-line by comparison with other educational enterprises?

d. Are there techniques of resource management which vocational educators must utilize in handling the expanded programs presently envisioned?

8. Organization and Management

a. What does a State Plan contain and who prepares it and why?

b. How does local educational planning, regional or Federal affect the structure and content of State Plans?

c. In what manner does or should manpower planning influence local and State plans and decisions?

d. How does one go about providing suitable programs for special needs students such as disadvantaged or handicapped?

9. Occupational Structure

a. How may an analysis of the occupational structure assist in guiding the development of programs?

b. What are the major occupational areas in the world of work which should influence the structuring of programs?

c. Where does the concept of occupational cluster enter into these decisions?

d. To what extent should preparatory programs for selected occupations be instituted irrespective of current needs?

10. Program Improvement

a. What kinds of usable data can be gathered through or evaluation upon which to base program improvement?

b. How many experimental or exemplary studies influence the strengthening of vocational education?

c. How should standards and accreditation relate to the topic of program improvement?

d. What kinds of organizational structure will aid in bringing about curriculum improvement most effectively?

11. Equality of Opportunity

a. Where are the identified inequalities -- are they rural, urban or stratified in another way on the criteria of availability?

b. Are there differences in programs suitable for disadvantaged versus advantaged?

c. Are programs appropriate for handicapped different from those afforded special needs students?

d. Who are the potential students not now served and what kinds of offerings not now provided should be planned and instituted?

12. Vocational Education and Personnel Development

a. How does a vocational leader conduct a systematic personnel development activity?

b. To what extent are administrative and supervisory personnel responsible for the improvement of those in instructional service?

c. How does a leader become a manager of resources including people?

d. How should teacher trainers increase in competence to meet the need for expanded pre- and in-service education?

Blocks of Courses, Further Detailed

1. Vocational Education

The vocational education tutorial accounts for eighteen quarter credits toward the suggested distribution shown in the table on page 14.

For fellows choosing either the administration or instruction option under the Ed.D. degree, additional credits in elective courses in the major would be taken. These could carry descriptive titles such as Critical Issues in Vocational Education, Foundations, Youth Organizations, Fiscal Planning and Budgeting Systems, Exemplary Programs, Career Development in Vocational Education or others.

For those who elect the Ph.D. option, either Curriculum or Research-Evaluation, the illustrative, elective courses could include Curriculum Development, Research, Evaluative Criteria for Occupational Education or Independent Study -- all in vocational education -- plus additional titles not listed here. Graduate courses taken elsewhere could be utilized also to satisfy this requirement if the content appears to be essentially identical.

2. Administrative Theory and Practice

Courses in administrative theory and practice are restricted to those fellows who elect the administration major under the Ed.D. program. Typically, course work in school administration builds upon two foundations courses and then could include Public School Finance, Legal Aspects, School Plant Planning, Personnel Programs, Community Relations, Administrative Organizations, Administration in Higher Education or similar areas dependent upon student goals.

3. Learning and Instruction

Learning and instruction courses are included in the major for students who wish to become instructional specialists whereas under all other options they become part of the supporting field of study. Typical courses utilized here might include Learning and Cognition, Analysis of Instruction, Behavior Theory and Knowledge Acquisition,

Cognition and Pedagogy, Individual Differences and Analysis of Behavior.

4. Psychological-Personnel Services

For the Ed.D. instructional specialist option, psychological-personnel services becomes one of the major course blocks required while in all other options it constitutes a portion of the supporting field. A student preparing to be an instructional specialist should be well grounded in such courses as Individual Appraisal, Foundations of Career Development, Counseling Procedures, Individual and Group Guidance, Counseling Theory and Procedure, Vocational Guidance or Diagnosis of Learning Difficulties. Specific courses dealing with the disadvantaged and handicapped taken in this course block.

5. Educational Theory and Curriculum Development

Students who elect to become curriculum specialists using that option under the Ph.D. degree will probably study educational theory and curriculum development to the extent of twenty-four credits. Those students taking all other options with either degree study this area as supporting of different majors. In this block of courses, one would expect to find social, philosophical and economic foundations and advanced courses in secondary, post secondary and higher education, curriculum theory and development.

6. Research-related Tools and Techniques

E.P.D. fellows who elect the Research-Evaluation option or the Curriculum option are expected to take a heavy concentration of work in this area with the former selecting about thirty-two major credits and the latter twenty-four. Among the thirty-two major credits one would expect to find courses in statistics, statistical measurement, research methods and computer operation.

7. Manpower or Technical

Fifteen credits in these fields are required under all options of both degrees although under the Ed.D. degree, they constitute a closely related concentration as a collateral field. Under the Ph.D., these fifteen may be scattered more broadly so long as they support the major option of study. The emphasis here is on the economics, sociology, etc. of work, occupations and manpower policy formulation.

8. Discretionary

Ph.D. majors following the Research-Evaluation commitment, complete their programs by electing a specific area for further study that will prepare them for conducting research in that area.

INTERNSHIP OR PRACTICUM

The formal, organized curriculum structure under which leadership competence in vocational education may be developed stands incomplete at this stage because its capstone has yet to be installed.

This structure, while exhibiting a reasonably high degree of internal consistency through its blocks of course work in specific areas, in-depth study of major interest areas, collateral or supporting fields of study, broad coverage from the related disciplines and assumed conformity to students' needs and goals, can still be characterized externally as fragmented into compartments of quite independent study.

The structure needs a catalytic agent which will aid in synthesizing the various components and weld them into a defensible whole.

The catalytic agents consist almost solely of the internship or practicum experiences built into every E.P.D. leadership program. These are the capstones without which every curriculum structure stands incomplete.

What Is An Internship?

In the fifth presentation of this Institute series, Dr. Bjorkquist has conceptualized the internship excellently leaving little but its description and utilization to be discussed here. The internship capstone constitutes an arranged opportunity afforded a student in which classroom theory can be applied and practiced in a genuine work situation.

Doctoral students preparing for administrative positions under the Ed.D. degree, for example, would undertake the internship in a situation where they would observe and conduct selected actions associated with administration. These assignments should involve some reasonable degree of actual participation under a plan which would revolve them through most of the typical tasks. In general, the task-experience should be non-repetitive but rather all-inclusive if possible. Rarely, if ever, may a student return to his previous work place to intern under a former supervisor to perform tasks previously handled.

Internships are highly individualized in terms of student goals and needs, exhibiting few characteristics amenable to common description and specification. They should be sufficiently flexible to enable an adviser to tailor-make one around a candidate's strengths and weaknesses.

Provisions should be built into the guidelines enabling a student to participate in multiple internship or practicum assignments when there are learning experiences needed which cannot be obtained from one situation alone. Actually, multiple assignments may be highly salutary in "rounding out" a doctoral candidate. Vocational leadership at best is multi-faceted in its complexity, and thus, perhaps all assignments should be internally multiple or else externally scheduled to obtain that characteristic.

Doctoral degrees outlined in this presentation involving all major options in either degree pattern would adhere to the above specifications.

What Are The Objectives Of The Internship?

After again discussing the "theory into practice" issue, Dr. Schaefer suggests a series of goals for internships wholly compatible to this presentation:

> "The internship experience should provide an opportunity for the intern to develop perceptions relevant to his professional role. The setting should allow the intern to discover, develop, and modify skills and techniques relevant to this future role. Thus the intern must function in an atmosphere that requires the use of those skills normally associated with his chosen career.
>
> The internship is designed to facilitate the development of skills, abilities, and understandings considered essential to practitioners of his particular area of specialization in education.
>
> Since the development of competence in the professional art of administration, college teaching, or research is a behavioral process in which the professional exhibits his competence as behavior, the internship is intended to be a realistic avenue of transition from past employment to future positions."[4]

What Role Should State Departments Play?

In the third presentation at this Institute, Dr. Struck described an earlier role of State Departments as one concerned primarily with the regulatory functions to that of emphasizing: (1) leadership, (2) services to all areas, schools and institutions in the State, and (3) necessary regulatory functions regarding funds, school personnel and students.

The Vocational and Technical Divisions of State Departments, under the objective of exercising greater leadership, now should play a heavy role in the guidance of E.P.D. programs. Divisional personnel must assume responsibility in these leadership development programs among other things,

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4. Schaefer, Carl J. "Guidelines for the Internship in Vocational-Technical Education." New Brunswick, N.J., Rutgers University: The Department of Vocational and Technical Education, May 5, 1969. (offset)

to identify facilitate and perhaps coordinate the arrangement of internships for student participants. No other agency resides in a more strategic position to suggest meaningful situations in vocational programs where leadership learning can take place.

From their vantage point, Vocational Division personnel know the State level operation and its learning potential; they know all Area Vocational-Technical Institutes and their unique options; they are fully informed about local programs State-wide as well as vocational centers with their problems and challenges. No better resource exists in any state.

While cooperating industries, governmental institutions and agencies, private schools and research organizations and non-vocational establishments may afford profitable placement for internees, the bulk of E.P.D. fellows will intern in public vocational schools. In this process, State Department personnel need to exercise strong leadership to assume complete success of internship participation.

In another role -- and Struck has done this well -- State Department leaders must have a direct input into leadership development programs by identifying competencies which must be accentuated in preparatory programs.

How Should Internships Be Managed?

Internship arrangements initially originate with an educational agreement between a student and his adviser. As a general rule, student, adviser and internship supervisor should discuss thoroughly the proposed assignment to clarify objectives, isolate the major learning components, the hours and times involved, method of evaluation and similar important aspects.

In the Minnesota program, these agreements are written in some detail and submitted for review by the program Co-directors to insure that all contingencies have been covered. Under all ordinary conditions, the adviser

carries full responsibilities for the student during this experience to insure that classroom theory does get into practice insofar as possible.

If advisers agree that the internship is indeed one of the capstones of the program, then there rests upon those experiences a heavy educational responsibility.

When Should It Be Scheduled?

Since nearly all E.P.D. fellows possess a considerable background of previous experience, "internship or practicum readiness" probably exists in some degree at the very beginning of the program. However, from a realistic standpoint, a student must have sufficient theory with which to practice before entering upon this venture. In particular, this would be true when a change in students' goals necessitates in-depth preparation not formerly possessed.

And thus, while no specific time or number of credits would be given as prerequisite, the characteristic of "readiness" as judged by the staff and student, probably dictates when the assignment should occur. At the same time, scheduling provisions should allow sufficient flexibility to accommodate any reasonable, appropriate student objective.

How Much Time Required By Internship?

Whereas reasonable flexibility has characterized previous elements of these guidelines, the total time required is not open to negotiation. In the Minnesota program, students must commit the equivalent of two quarters of work, consisting of forty hours per week for twenty weeks.

However, the scheme by which these eight hundred hours are served may vary from student to student. Some may begin on a quarter time basis and

later escalate into full-time; others may choose to work half-time or full-time as the case may be. Under no conditions may previous work experience prior to entering the program be substituted.

Assuming fifteen graduate credits to be a full load, six or perhaps nine credits could be taken concurrently with a half-time internship or practicum assuming both can be scheduled.

Should An Intern Be Paid?

As a general rule, students should not expect pay while serving an internship because the assignment may be chosen for financial reasons rather than for its genuine learning potentialities. The internship should always be viewed as an integrating, synthesizing, practicing situation, based upon educational planning equal to that given any regular graduate class. However, an intern should be reimbursed for all abnormal, out-of-pocket expenses incurred in the pursuit of the assignment.

An Internship or Practicum, Which?

In the third presentation, both topics were treated thoroughly and completely; little remains here but to furnish some illustrative applications -- especially for the practicum.

Both experiences, although very closely allied, should not be confused and utilized interchangeably. Perhaps the preceding discussion has provided a sufficient delineation of the internship to indicate that here, theory becomes converted into practice in an established, on-going institution or agency. This location would be appropriate for the instructional specialist or the administration option under the Ed.D. degree.

However, the curriculum specialist or research-evaluation person present circumstances differing quite markedly. Both are based almost solely

or functional competence to produce knowledge. Under these conditions, a practicum becomes more logical in that the research evaluation specialist should be assigned to an agency such as a Research Coordinating Unit where these activities are taking place; the curriculum specialist should also serve a similar practicum where curriculum research and development in vocational education is occurring.

An entirely different utilization of the practicum might consist of a continued educational situation, specifically designed and sufficiently realistic to afford learning not otherwise easily obtainable. In the second presentation, Struck listed a number of competencies not developed among doctoral candidates presently graduating. For example, few if any are being prepared to deal with student dissent and disturbance. Only by chance might an internship assignee have an opportunity to experience serious student unrest first hand.

Yet, a practicum experience could be developed which would employ a role-playing student group carrying on a simulated demonstration or strike to provide a reasonable facsimile from which appropriate skills and techniques could be learned and practiced. Another practicum could be built around the problem of teacher and employee negotiation to develop certain administrative skills for dealing with these matters. Obviously, there are numerous problems for which this type of practicum experience could be designed to enrich any vocational leadership development program. The practicum should be used when it can effectively and efficiently provide the learning outcomes which are difficult if not impossible otherwise.

Evaluation of Internships and Practicums

Doctoral student internships or practicums are highly individualized, near-terminal assignments, tailor-made in most aspects in response to a candidate's goals and aspirations. Evaluation of these experiences, therefore, must be equally individualized for each student on each assignment.

This characteristic bars the use of any presently available, formal, objective appraisal instruments.

Instead, heavy reliance needs to be placed on a three-way system of evaluation involving the student, his adviser and internship supervisor. This triumvirate needs to assay the profitability of the arrangement, the degree to which the student has made use of the circumstances to exercise his skills and knowledge, the amount of personal satisfaction derived from the experience and some evidence of the satisfactoriness of the individual as an intern.

Likewise, this discussion should unveil evidence of clarified perceptions relevant to the student's professional role in that assignment.

Additional evaluation must be based upon a critical review of the final report of the experience prepared by the student, its concordance with the goals and objectives initially adopted and evidence revealed therein of the application of theory to practice in a realistic setting. Hopefully, the final report might have the characteristics of a daily diary to illuminate in a better light those actions which give evidence of a student's satisfactory performance or his capability for doing so.

Evaluators need always be mindful that the end product of E.P.D. programs is the production of leadership; the assessment of this qualification has the added dimensions of time and place. It is entirely possible for the right person to be in the right place at the right time or any of its several variations. These modifiers of the circumstance need to be kept in mind in the assessment process.

For fellows who have served in multiple assignments another form of evaluation becomes available through the expedient of comparison between separate assignments or facets thereof. There could be comparisons between

locations, supervisors, and the quantity and quality of products developed. In conjunction with this arrangement, a detailed diary would be most helpful to the process of evaluation by all persons involved. And finally an assessment of the final report of the experience should provide a basis for additional evaluation.

In the last analysis, evaluation will probably exhibit a high degree of subjectivity although subjective judgements can be made quite objective dependant upon their structuring.

FIELD STUDY OR THESIS

All E.P.D. fellows, irrespective of degree are required to conduct an independent study of a field problem requiring the utilization of the tools, techniques and content covered in their programs of study. This study would assume to facilitate educational change through developmental, diffusion and/or adoption activities.

Upon completion of the study, the student would prepare a summary report of the activity for publication as a monograph or as a lead article in one of the professional journals. This report is not a thesis by any of its present definitions, but rather as the name implies, a well written final report.

Certain Ph.D. students may elect to prepare a thesis of the problem, if the content lends itself to that treatment. However, this decision is a discretionary one between the adviser and the student.

In concluding this presentation about curriculum for E.P.D. doctoral programs, nothing envisioned in this discussion may be chiseled in marble, nor should any other program designed to develop leadership competencies in vocational education. All programs need to remain forever dynamic -- fluid, flexible and responsive to the needs of evolving vocational education.

Ralph Tyler, in a recent monograph, has provided an appropriate admonition in writing:

> "We now see that schools and colleges, like other institutions, become program-centered, losing their orientation toward their clients for services. As years go by, programs are developed that are reasonably acceptable to the clients they have been serving. Then the institution is likely to believe that its program is its raison d'etre rather than the need for its services. When the program-worship stage is reached, the institution seeks to find clients who like the program and can get along with it, and to deny admission to others. After a time, the terminology develops that those not admitted are "poor students," "not intelligent," and not of "college calibre." In many cases, as in the founding of the Land-Grant Colleges, new institutions have to be established to serve the clients rejected by the older ones."[5]

END

5. Ralph W. Tyler, "Changing Concepts of Educational Evaluation," American Educational Research Association. Monograph on Curriculum Evaluation No. 1. Chicago: Rand McNally and Company, 1967. p. 15.